



Agriculture is the most healthful, the most useful, and the most noble employment of man.—WASHINGTON.

VOL. IV.

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NO. III.

A. B. ALLEN, Editor.

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FENCES.—No. 2.

HAVING shown in our last the enormous expense to the country of fences, and the injustice and tyranny of the system, we will now undertake to instruct our readers how a great proportion of them may be dispensed with.

1. Compel all, by the most rigid laws, to keep their stock up in strong enclosures; or, if permitted to roam, let them be in the care of some one responsible for all injuries they may do to their neighbors.

2. Adopt the soiling system wherever feasible. For a convincing argument in favor of this mode of feeding stock, we would refer to the example of Mr. Pell, as given in page 70 of this No. The labor and trouble of soiling has been greatly magnified, and one need only practise it judiciously for a single season, to be convinced of this.

3. Lands which are too poor or too rocky for a profitable rotation of crops, should be turned into sheep pastures, and managed in the same way as the downs are in Spain, England, and other parts of the world. Sheep are gentle animals, and easily restrained and kept within bounds. A faithful boy, with a single dog of medium size, will easily take care of a flock of 500. Those who possess a few acres, and small flocks, can unite their sheep, proportioning the animals to the quantity of land they respectively own, and then place them under the care of a single shepherd. These flocks may be distinguished by each owner putting his distinctive mark upon them. These should be brought home to be soiled or hurdled in a feeding enclosure every evening, and then turned out again on the hills or plains on the following morning, if there be any danger of their wandering at night into contiguous fields of growing crops.

If any one desires to see how easily all these things may be managed, let him make a tour up the

valley of the Connecticut, and especially stop and examine the system practised in the town of Northampton, Massachusetts. The meadows here are several miles wide, and subject to be overflowed every spring; no fences can therefore be maintained upon them. To preserve the crops from destruction, all animals running at large are placed under the care of a responsible person, who gives bonds to the town to make good any injuries they may commit. Every owner of an animal then pays this person so much per week for taking care of them. It is a pleasing sight to see a large herd of cows under the superintendence of one man, a couple of small boys, and two dogs, quietly browsing over open fields through the day, and as they return to the village, regularly stop at the domicils of their respective owners for the night, and again gather together the next morning, to renew their feeding abroad. Thousands of acres on the south-east end of Long Island are pastured by cattle under the care of keepers, thus saving the necessity of fences. Nantucket and other islands are pastured in the same way; and it only requires a little obligingness, honesty, and honor, among the people at large (which all have, save a few *land pirates*), to adopt this system throughout the whole country.

The system of *non-fencing* forced upon the farmers of the valley of the Connecticut, by the annual overflow of the waters, is at last beginning to be adopted on the poor sandy uplands in its vicinity. The fencing of these lands hitherto had generally cost more than they were worth; the consequence was, that thousands of acres had been given up to open common, as nearly valueless, or to the slow, stunted growth of a very poor quality of wood. But now that this great and totally unnecessary expense is saved the owners of the land, they are again beginning to cultivate and improve it.

We do not know a more lovely country than the valley of the Connecticut. One may travel along its borders mile after mile, and scarcely see a fence. This looks like the *country* indeed, and not like a series of miserable, ugly fenced *cattle pens*, and *cropped-prisons*. The valley is picturesquely checkered with diversified crops of grass and grain, and is owned in patches from a single acre up to one hundred. The division lines are designated by corner-stones at each end of the several lots, which terminate on cross-paths, or roads made permanent rights of way by prescription or immemorial usage. These boundaries are respected by all, and such a thing as a lawsuit or difficulty of any kind regarding them, has never been known in most of the towns, although the country has been settled for two centuries.

Heaven made the prairies of the west an open country, and to be cultivated as such; but man has come in with his accursed fences, to cut up, mar, and despoil it of its highest natural beauty; and in addition to all this, subject himself to a never-ending, grinding, and totally unnecessary tax, that the first settlers, above all, are very unable to bear. How much better would it be for them to arrest this tyrannical and odious system before it gets so strongly established that ages must pass away before it can be thrown off? Our only hope in the country is, for every person to commence a reform upon his *own farm*, by adopting the soiling system, and abolishing fences wherever practicable. To do this they must cultivate the better portions of their lands by a judicious rotation of crops, and in the best possible manner, leaving the poorer parts for stock grazing. Wherever we go we see land brought under cultivation, so rocky, rough, and poor, that the crops will not pay the expenses even of plowing and planting. Such lands ought not to be broken up till they can be done so profitably; till then let them be kept in pasture. It is preposterous to suppose that land which only yields 10 bushels of wheat or rye per acre, 15 of oats, 20 of corn, 100 of potatoes, or one ton of hay, will pay the expenses of cultivation. It ought to be rich enough naturally, or be made so, to double these crops on the average, before it is brought into tillage. It is a mistaken idea also to suppose that grass will run out in any kind of land. If pastures are properly managed, they may be kept in good grass as long as the world lasts.

TO PREVENT MOULDING IN BOOKS, INK, PASTE, AND LEATHER.—Collectors of books will not be sorry to learn that a few drops of oil of lavender will insure their libraries from this pest. A single drop of the same will prevent a pint of ink from mouldiness for any length of time. Paste may be kept from mould entirely by this addition; and leather is also effectually secured from injury by the same agency.

LIME.—One farmer saved his clover from destruction by the slug or small snail, on land bearing a wheat crop, by a slight dressing of powdered lime, scattered through a clover seed machine late in the evening, when the insects were busy at work. Lime would be frequently useful if applied in this manner. Sown in moderate quantity on light land, it will bring in white clover; it is said also that it will destroy the fungus which causes the rot in potatoes.

EXPERIMENTS ON MR. PELL'S FARM.

In a short and imperfect account which appeared in our last volume of the farm of Mr. Pell, in Ulster County, our readers will recollect we intimated, that we hoped at a future day to be able to give some of his valuable experiments to the public. We now commence, and shall continue them from month to month, trusting his example may be followed by others of our friends, and that from them also we may be allowed to record an account of the same in our pages.

CULTURE OF WHEAT.

First Experiment.—On the 1st of September, 1842, a field containing 20 acres was prepared for wheat. The seed used was the white flint, weighing 60 lbs. per bushel. It was prepared for sowing by soaking it in strong brine four hours, then drained through a sieve, and spread upon the barn floor, and a dry composition, highly fertilizing, sifted upon it, at the rate of one bushel of composition to ten of the seed wheat, which adhered to the seed as it dried. It was then sown at the rate of three bushels per acre, and 300 bushels of oyster-shell lime spread over the field, and the whole harrowed in together. Two men followed the harrow, one sowing clover seed, at the rate of a bushel per acre, and the other, on the same land, at the rate of half a bushel of timothy seed per acre. After that the ground was twice harrowed and rolled. The wheat and grass grew luxuriantly during the following season, and presented throughout a perfectly healthy and deep green appearance. Adjoining this another field, containing 10 acres, was sown with the same kind of wheat, in a dry state. This land was not limed. The wheat grew well the next season until it blossomed, after which it appeared sickly. About this time the grain was formed, insects attacked it, and the crop was totally destroyed. The straw was covered with rust, and unfit for any purpose except manure. The wheat on the 20 acre lot was cut in the milk, commencing on Monday morning; on the Saturday following it was ground into flour. The grain weighed $64\frac{1}{2}$ lbs. per bushel, and was awarded a premium by the American Institute, as the best of forty-three parcels exhibited.

It was supposed by many farmers, that so large a quantity of lime as 300 bushels per acre would have injured the land, it being a sandy loam. The grass seed grew finely, and has yielded since three tons of hay per acre.

Second Experiment.—In September, 1843, a field of 30 acres was sown with prepared wheat, and top-dressed with charcoal dust, at the rate of 52 bushels per acre. It grew rapidly, was not attacked by rust, mildew or blight, when fields near it were almost destroyed. A small portion of the lot, which had received by accident a large supply of charcoal dust, produced at the rate of $78\frac{1}{2}$ bushels of wheat per acre. The grain was cut when the straw presented a yellow appearance four inches above the ground. At that stage of its growth, a milky substance could be expressed readily from the kernels, by gentle pressure of the forefinger and thumb. It was allowed to remain three days on the field, when it was carried to the barn and threshed out immediately. It weighed 64 lbs. per bushel, and sold for $12\frac{1}{2}$ cents above the market price by weight. A few acres were left standing, and cut three weeks after, when others in the neighborhood harvested their wheat. This proved

small, shrivelled, and weighed 56 lbs. per bushel. The straw had lost its most nutritious substances, was much lighter than that cut earlier, and was consequently less valuable. Mr. Pell thinks that after the stem turns yellow near the ground (there being no connection between the root and the tassel), the kernel wastes daily. By early cutting, nearly all the saccharine matter is preserved in the straw, and it is thus rendered almost as valuable for fodder as hay. If the straw could be returned immediately to the field and plowed under, it would doubtless prove a more valuable manure than if concocted into excrement by passing through the animal, for this reason: by the analysis of Sprengel, it contains potash, soda, lime, magnesia, alumina with a trace of iron, silica, sulphuric acid, and chlorine. In passing through the animal it assists to form the whole animal economy; and as manure is devoid of a large portion of all the substances mentioned, the grain contains precisely the same substances, in different quantities. To prove this, Mr. Pell sowed some wheat on a pane of glass, and covered it with straw, not allowing any earth to come in contact with it. This grew as well as if it had been sown in earth, but unfortunately was destroyed by accident before it came to maturity. In France the same experiment was tried, and fully succeeded.

Third Experiment.—On the 9th of October, 1844, the tops from a potato field were gathered into a heap and burnt, and the ashes returned with a view of sowing wheat. The seed was then prepared thus: soaked four hours in brine that would buoy up an egg; then scalded with boiling hot salt water mixed with pearl-ash passed through a sieve; distributed thinly over the barn floor, and a dry composition sifted on it, composed of the following substances. Oyster-shell lime; charcoal dust; oleaginous charcoal dust; ashes; Jersey blue sand; brown sugar; salt; Peruvian guano; silicate of potash; nitrate of soda; and sulphate of ammonia. After sprinkling this composition on the wheat, the sun was permitted to shine upon it half an hour, when the particles became as it were crystallized upon the grain. In this state it was sown at the rate of $2\frac{1}{2}$ bushels per acre, directly on the potato ground, from which the tops only had been removed, and plowed in to the depth of five inches; harrowed once; a bushel of timothy seed then sown to the acre, and harrowed twice. At the expiration of 15 days the wheat was so far above ground, as to be pronounced by a neighbor in advance of his which had been sown on the 1st of September, in the usual manner, without any preparation. Contiguous to this, prepared wheat was sown on carrot and turnip ground, the tops not having been removed, and plowed in together with like success. Another field adjoining, 3 bushels of wheat were sown per acre, in a dry state, on potato ground first plowed and harrowed, and after sowing, twice harrowed. The first parcel, although plowed in to the depth of 5 inches, was $2\frac{1}{2}$ inches high before the last appeared above ground.

The following composition of Mr. Pell's own compounding was then spread by hand broad cast over the whole field, at an expense of \$3 per acre: stable manure; dry charcoal dust; hickory wood soot; bone dust; oleaginous charcoal dust; oyster-shell lime; decayed leaves; leached ashes; unleached ashes; guano; sal soda; nitrate of potash; fine salt;

poudrette; horn shavings; refuse sugar; ammoniacal liquor; blood; sulphuric acid; magnesia; plaster of Paris; plaster from walls ground; decayed grass; decayed straw; decayed weeds; fish; refuse oil; sea weed; oxide of iron; and oxide of manganese. The object being to furnish food for the growing crop, every substance required for its sustenance was sought for in this composition. By Sprengel's analysis, all cereal grain, peas, beans, carrots, potatoes, turnips, clovers, and grasses, contain chlorine, potash, phosphoric acid, soda, sulphuric acid, lime, silica, magnesia, oxide of manganese, alumina, and oxide of iron, with the exception of wheat, which has no oxide of manganese, and but a small portion of iron.

Fourth Experiment.—On the 29th of October, 1844, eight bushels of wheat were sown to the acre on sod ground, and then plowed in beam deep and harrowed four times. The result of this will be given next fall.

If the two last above experiments should result favorably, the farmer will be enabled to use his corn, potato, and other root ground—which is always left in the best possible tilth by these crops—for wheat or rye, instead of allowing it to remain idle, as is the present custom, until the ensuing spring.

SOILING.

Treatment of Milk Cows.—During the summer, Mr. Pell's cows are kept in the barn yard and soiled. They are fed three times per day, at stated hours, and in addition to their ordinary food, receive at 12 o'clock each day eight quarts of wheat bran, wet with water. The general feeding is dry hay, green grass, green corn stalks, occasionally a few potatoes, and salt whenever the cows feel a disposition for it. Water they have free access to at all times of the day and night, and should never be without it. An experiment was tried of giving the cows water only three times each day, immediately after eating their food, and they seemed satisfied. They were then constantly supplied, and drank freely nine times in one day, taking apparently as much at each draft as when allowed water only three times; so that, in reality, when permitted to drink only three times a day, they must have suffered much from thirst in the interims.

When the weather is very hot or rainy, the cows have sheds made partially under ground, into which they can retire and ruminate undisturbed. With this treatment they constantly take on fat, and secrete twice the quantity of milk that they would if allowed to run at large. During the past summer the cows gave an average of 16 quarts of milk daily, and in the fall were fit for the butcher. In winter they are kept in stalls in a warm barn, littered freely, as occasion requires, and daily curried and rubbed. When the weather is fine, they are turned into the barn-yard for exercise in the middle of the day. Twice a day they are fed cut oat and wheat straw, with a small quantity of bran sprinkled over it, for the sake of which they eat their allowance entirely up, and once a day cut hay; they are salted four times a week, and have roots, such as beets, carrots, potatoes, or turnips once a week. By cutting the straw and hay, cattle are enabled to eat their meal in 25 minutes; whereas, if uncut, they are engaged in masticating their food half the night, the labor and fatigue of which deprives them of the necessary time required for their rest.

Advantages of thus Soiling Stock.—Mr. Pell carted

from his barn-yard 230 loads of manure on the 10th of May, which was made in the preceding six months. On the 10th of November, from the same yard, he carted 236 loads more, averaging 30 bushels per load, made within the six months following the 10th of May. Five cows only were kept, which thus made 466 loads of good manure in one year. During the summer, leaves, straw, &c., were constantly thrown into the yard, and occasionally covered with charcoal dust. Each cow voided in six months 6,000 lbs. of urine, which was absorbed by the refuse, and its strength retained by the charcoal dust, gypsum, &c.; the manure, therefore, was intrinsically worth the New York city price, viz., \$1 the wagon load, or \$466.

In addition to making this great quantity of manure, the other advantages of soiling are: 1. No cross fences are required on the farm. 2. The cows give twice as much milk as when running at large. 3. They are fit for the shambles in the fall, being fat. 4. They are always ready to be milked. 5. They are never worried by being driven to and from the pasture. 6. They eat all the refuse grass, which would otherwise be lost. 7. Eight acres will keep them longer and better than 40 would depastured. 8. The fields are always in order, not being poached by their feet in wet weather. 9. The person is not much longer in cutting their food and giving it to them, than he would be in driving them to and from their pasture. 10. Manure enough is saved to pay the interest on a large farm. Numerous other good reasons might be given if the above are not considered sufficient.

The above experiment of Mr. Pell, showing the superiority of the soiling system, is strongly corroborated by others made in Europe, though probably unknown to Mr. P. when he commenced his. We quote from a speech recently made before a meeting of the Larne Farming Society, in Ireland, by Mr. Donaghy, Superintendent of the Agricultural Department of the Larne National School.

"Mr. Smith, of Deanston, a gentleman, whose scientific and practical knowledge, as an agriculturist, has placed him in the first rank of the improvers of the soil, is no mean authority in support of the soiling system. In the summer of 1841, he made an experiment on a dairy of twenty cows, pasturing the one-half and house-feeding the other. He selected them as equally as possible, in point of carcase, condition, and milking quality. The result of his experiment was, that the cows house-fed gave their milk more uniformly, and more plentifully, and continued throughout in excellent health, and improved in condition from 30s. to 40s. per head over those at pasture. The cows house-fed were kept on three-quarters of a statute acre each, whilst those that were pastured required one and a quarter acre of pasture, and a quarter acre of cut grass and vetches, making one acre and a-half for each; so that, upon the whole, about the one-half of the extent of ground necessary for the keep of cows at pasture, was sufficient for those kept in the house. I could adduce abundance of other proof, from equally respectable gentlemen, in support of the superiority of this system to that in general practice; but I shall content myself with merely saying, that if, according to Mr. Blacker, a gentleman who deserves the best thanks of the agricultural community, three cows could be kept on the same extent

of ground as is at present required to keep one—and I have not the slightest doubt but that, by proper management, they could—the benefit thus resulting to the farming interest would be immense. But the increase of milk and butter consequent on its adoption, would not be the only resulting advantage—the increase of the manure heap would be equally advantageous. No farmer, I care not how good his practice in other respects may be, can farm *profitably*, without a plentiness of manure. Now, it has been calculated, on an average, that cows are not kept in the house, at present, more than eight hours each day, throughout the year. If such be the case, and I have no reason to question the correctness of the calculation, would not a cow, which is house-fed summer and winter, produce three times as much available manure as one pastured? If, then, according to Mr. Smith's opinion, two cows could be kept in the place of one, six times as much manure could be made—if Mr. Blacker's views be correct, nine times as much manure could be realized. I contend, therefore, that the general adoption of this system would do away with a great deal of the poverty, privations, and misery, with which the small farmers are at present beset. And how? By increasing the means of subsistence. If we look at Belgium, with a population of 321 to the square mile (and an inferior soil to ours), and compare the condition of its inhabitants with that of the inhabitants of our own country, in which the population does not exceed 263 to the square mile, the contrast, on our part, is melancholy. But the Belgians pursue a regular rotation of cropping, house-feed their cattle, keep urine tanks, &c.; and, by superior management, are in the enjoyment of a degree of comfort and happiness to which the lower classes of Irishmen are utter strangers."

SWINE RUNNING AT LARGE.—We know of no practice more to be reprehended among farmers, than to let their hogs run at large and congregate about their doors when they are fed. Here they stir up a deep mortar bed of mud with their beastly feet and snouts, and add to it the droppings of their odious filth, and the decaying heaps of corn cobs from which they have shelled their food, making the approach to many farm-houses dirty and disgusting in the extreme. A pig of a fine breed, clean, and in good condition, is, like other stock, a pleasant sight enough when kept in his proper place; but brought out in bold relief near the house, he is extremely disgusting and filthy. By letting hogs run at large they are for ever in mischief, and put the farmers to much extra expense in fencing; they glean little abroad, and sadly waste their flesh in roaming; and what is quite as important to many, they also waste their manure. Keep them up in pens or close fenced fields, sufficiently distant from the house to prevent their odor reaching it, let the wind blow as it list. It is best to let swine run in orchards; here they are kept out of harm's way, and thrive well on the fruit.

TO IMPROVE PEAR TREES AND THEIR FRUIT.—When planted in a clay soil, mix sand and lime together at the rate of one of the former to two of the latter, and apply a bushel or so round each tree. Sea sand found mixed with shell fish is admirable for this purpose, and we presume that shell marl would be equally good.

TO KEEP UP A MOIST ATMOSPHERE FOR CUTTINGS.—In visiting conservatories, we have frequently heard complaints from those who had the care of them, of the difficulty of keeping up a moist atmosphere during the propagation of cuttings. For their benefit, we here present a plan for the same, which we have taken from the Gardeners' Chronicle. We can recommend it as a good one, from having seen it in successful operation in conservatories in this vicinity.

Explanation.—*a*, The cover of a hand-glass.

b, The frame-work of ditto.

c, A tray or riddle, having a bottom made of copper-wire, or perforated zinc, to receive soil wherein to plant cuttings.

d, An earthen pan, filled with water.

e, Cuttings.

Place the pan upon the ground, and the tray upon the pan, and over these put a hand-glass.

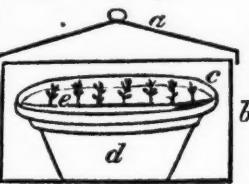


FIG. 12.

The Recording Secretary, HENRY O'REILLY, reported briefly on the operations of the Society, as far as duty devolved upon him in charge of the business at the State Society's Hall—remarking that he was preparing a full statement from the records of the year, to be submitted to the public authorities as required by law.

I. Wheat.—First premium awarded to Matthew Watson, of Canandaigua—he having raised two hundred and fifteen bushels of wheat on four acres and twelve poles of ground—or nearly fifty-two and a half bushels per acre.

II. Corn.—The first premium on corn was not awarded. The Committee award the second premium on corn to J. F. Osborn, of Port Byron, Cayuga county—his crop being two hundred and thirteen bushels and three-eighths of a bushel, on two acres of land.

Several applications in reference to wheat and corn crops were rejected, owing to defects in the statements of applicants—the measurement of the ground and other particulars not being properly certified. The Committee on Wheat and Corn crops reported by Joel B. Nott, of Guilderland, their chairman.

Note on the Corn Culture.—In connection with the report on corn crops, Mr. Enos, of Madison county, mentioned some interesting facts connected with his cultivation of corn, in reply to inquiries from many gentlemen in the meeting. The crop of Mr. Enos was unfortunately precluded from competition, by the fact that the papers on the subject failed to reach Albany in season for the present meeting. The reported product was extraordinary—one hundred and forty-seven bushels to the acre. On motion of Mr. E. Comstock, of Oneida, Mr. Enos was requested to furnish the Society with a detailed report of his process in raising this large crop. The statement of experiments on the culture of corn, made for a series of years by Mr. George Geddes, of Onondaga, it may here be added, are of interest akin to that excited by the experimental wheat farm of Gen. Harmon, of Monroe county; and will be found among the contents of the forthcoming volume of Transactions.

III. 1. Barley.—First premium to Stephen B. Dudley, of East Bloomfield, Ontario county—his crop being sixty-nine bushels and ninety-hundredths per acre, on a lot of two acres. The second premium was awarded to William Wright, of Vernon, Oneida county—his crop being fifty bushels and forty-seven pounds per acre, on a lot of two acres. The third premium was given to Nathaniel Wright, of the same place—his crop being forty-seven bushels and twenty-five pounds per acre, on two acres of ground. Bani Bradley, of East Bloomfield, stated that he had raised fifty-five bushels and three pounds on an acre; but the rule of the Society requiring two acres, this crop was excluded—there being only one acre and two rods in his lot. Several other crops were excluded from competition, owing to defective returns.

2. Oats.—The first premium to Seth Lawton, of Washington, Dutchess county—his crop being one hundred and twenty and one-quarter bushels per acre. The second premium to F. J. Osborn, of Port Byron, Cayuga county—his crop being one hundred and four bushels per acre, on a lot of two acres and nine rods. Several statements were necessarily rejected, through the imperfection of returns. There were no competitors for the premiums on rye and

N. Y. STATE AGRICULTURAL SOCIETY. ANNUAL MEETING, 1845.

THE Annual Meeting, for the choice of officers, &c., was held in the main hall of the Old State House, on Thursday, the 15th of January, JOHN P. BEEKMAN, President of the Society, in the chair.

Reports of the Officers, &c.—The Treasurer, THOMAS HILLHOUSE, of Albany, read a statement of receipts and expenditures during the year, for which he submitted the vouchers. It appeared, by this statement, that the receipts and disbursements for the year 1844 were as follows:

<i>Receipts.</i>		
Interest on \$3000 invested in stock		\$210 00
Donation from John Greig		50 00
" " Geo. Vail		25 00
" " Robert Donaldson		12 00
" " J. P. BEEKMAN		50 00
" " J. McD. McIntyre		20 00
" " Joel Rathbone		25 00
" " Wm. H. Seward		50 00
Receipts at Show		3,723 80
Appropriation from the State		700 00
		<hr/>
		\$4,865 80

<i>Payments.</i>		
Premiums		\$1,600 50
Balance due former Treasurer		114 23
Recording Secretary, for clerkship in charge of the State Agricultural Hall		550 00
Expenses at Show		300 00
Subscription to Colman's European Agriculture		100 00
Design for Diploma		50 00
Binding		328 00
Printing and advertising,		409 34
Incidental		481 84
		<hr/>
		\$3,933 91

The Corresponding Secretary, BENJAMIN P. JOHNSON, of Rome, made an interesting report concerning his labors for the year—mentioning the extent and satisfactory character of his correspondence, &c. He submitted sundry valuable papers and essays received from correspondents in different states, for insertion in the annual volume of Transactions; and congratulated the Society on its cheering prospects of extending usefulness.

peas, or on corn sown broadcast. The committee reported by Ebenezer Mack, of Tompkins county, their chairman.

IV. Clover Seed.—A volume of the Transactions was awarded to Henry Brown, of Enfield. The result on three acres and ten rods of ground was, ten bushels of seed, weighing sixty pounds per bushel—one bushel and eleven pounds at the rate of fifty-two pounds to the bushel; and half a bushel of tailings, weighing thirty-eight pounds per bushel.

V. 1.—Ruta Baga.—First premium to John G. Smedberg, of Prattsville, Greene county—he having raised eleven hundred and sixty bushels on one acre, and twenty-one hundred and seventy-three bushels on two acres and five rods. The second premium was awarded to Henry S. Randall, of Cortland—his crop being eight hundred and twenty bushels per acre. The third premium, for seven hundred and twenty-four bushels per acre, was awarded to C. B. Meek, of Ontario county.

2. Carrots.—First premium to William Risley, of Chautauque—his crop being ten hundred and fifty-nine bushels per acre. One applicant only.

3. Mangel Wurtzel.—First premium to C. B. Meek—his crop being eleven hundred and one bushels per acre. One applicant only.

4. Sugar Beets.—To J. F. Osborn, of Cayuga county, the third premium—his crop being six hundred and fifty-seven bushels per acre. One applicant only.

5, 6. Potatoes and Cabbages.—No applicants for the premiums on either crop.

VI. Butter.—Only two applications were made for premiums on butter. The committee awarded the first premium to George Vail, of Troy—being a silver medal. Mr. Vail's cows are Durhams. Six of them, kept on grass feed, produced in thirty days, two hundred and sixty-two pounds nine ounces of butter—averaging for each cow forty-three pounds twelve ounces. The milk of one of these cows was kept by itself for thirty days, and yielded in that time fifty-two pounds nine ounces of butter.

VII. Sheep.—The committee, consisting of Major Kirby, J. McDonald M'Intyre, and C. N. Bement, to whom was referred the statement of Mr. Henry S. Randall, of Cortland (the only claimant for a premium "for the best managed flock of sheep"), awarded him a gold medal worth \$12.

Various Committees on Agricultural Books, Essays, &c., now reported, which will be spoken of hereafter.

Election of Officers—1845.—The committee of three from each Senate district, appointed to nominate officers for the current year, and also to designate a location for the next Annual Fair and Cattle Show—through their chairman, Judge Savage, reported the following names for officers; and the nomination was unanimously confirmed by an election according to law, viz.:—

BENJ. P. JOHNSON, of Oneida, President.

1st district—**JAMES LENOX**, of N. Y., Vice President.

2d district—**THOS. L. DAVIES**, of Dutchess, V. P.

3d district—**E. P. PRENTICE**, of Albany, V. P.

4th district—**H. W. DOOLITTLE**, of Herkimer, V. P.

5th district—**BENJAMIN ENOS**, of Madison, V. P.

6th district—**O. C. CROCKER**, of Broome, V. P.

7th district—**H. S. RANDALL**, of Cortland, V. P.

8th district—**G. W. PATTERSON**, of Chautauque, V.P.

DANIEL LEE, of Erie, Cor. Secretary.

L. TUCKER, of Albany, Rec. Secretary.
THOMAS HILLHOUSE, of Albany, Treasurer.
THOMAS S. FAXON, of Oneida,
E. KIRBY, of Jefferson,
ALEX. WALSH, of Rensselaer,
GEORGE VAIL, of Rensselaer,
J. M'D. MCINTYRE, of Albany,

Additional members.

State Fair and Cattle Show of 1845.—The same committee discharged their remaining duty by reporting in favor of **UTICA**, as a proper location for the next State Fair and Cattle Show—a committee of the citizens of Utica, viz.: T. S. Faxon, John Butterfield, Alfred Churchill, Benjamin N. Huntington, H. Greenman, and David Gray, Jr., having pledged themselves to prepare the grounds with all such erections as shall be required by the Executive Committee of the State Society, so as to be in all respects ready for the Society to occupy at their next Annual Show, and also to furnish such police officers and clerks as may be requisite for transacting the business of the Fair and Cattle-Show, without expense to the State Agricultural Society.

The Society then adjourned till seven o'clock in the evening; at which time the members and other friends of agriculture met in the Assembly Chamber, the use of which was granted for the occasion.

The Annual Address—Was then delivered by the Hon. John P. Beekman; who, in the course of his remarks, reviewed the progress of Agriculture in its main features, from an early period down to the present time. Practical observations on the character of modern agricultural implements, as well as theoretical views on modern science in its connection with ordinary farming operations, were blended in the progress of his discourse, and he referred with feelings of strong satisfaction to the onward course of improvement manifested in the operations of the Agricultural community all over the State. He referred to the beneficent influence of the legislative bounty, small as that bounty is, in stimulating attention to farming affairs; and commended the efficient as well as economical spirit with which the legislative appropriation had been turned to the advancement of agricultural improvement. He also alluded to the effects of this improvement upon private happiness and public prosperity; and expatiated on the comforts brought within reach of our whole *industrious* population—the humblest among whom, if discreet and enterprising, may enjoy comforts which not long ago could scarcely be compassed by persons of moderate fortune.

On concluding his remarks, the speaker (Mr. Beekman) introduced his newly elected successor,

Mr. BENJAMIN P. JOHNSON, who then made a few remarks, expressive of his views of the honor conferred upon him by his election as President of the State Agricultural Society—and assured the audience that his efforts would be increased by a sense of the additional responsibilities devolved upon him by the new official position in which he had been placed, through the partiality of his agricultural friends. He urged all around him to remember the motto on the escutcheon of our noble State—"EXCELSIOR"—and inquired what motto was more consonant with the aspirations of those who seek advancement—higher, still higher—in the scale of agricultural and intellectual progress?

It was then, on motion of Judge Jones, of Oneida, *Resolved*, That the thanks of the State Agricultural

Society be tendered to our late President, Dr. Beekman, for his valuable services in promoting the harmony and interests of the Society during the past year—particularly for his able and eloquent address this evening; and that a committee of three be appointed to request a copy of said address for publication.

The committee named under this resolution consisted of Messrs. Jones of Oneida, Sherwood of Cayuga, and Kirby of Jefferson.

On motion of Gen. John J. Viele, it was

Resolved, That a committee be appointed to prepare a memorial to the Legislature, at its present session, for a renewal of the Act of 1841 for Promoting Agriculture.

The committee under this resolution consisted of Messrs. Viele, Prentice, Rathbone, Walsh and Tucker.

And then, after notice being given that the newly elected officers of the Society would meet to organize on the following day, at the Agricultural Hall, in the Old State House, the meeting adjourned.

HENRY O'REILLY, *Rec. Sec'y.*

MEETING OF THE AMERICAN AGRICULTURAL ASSOCIATION.

THE first general meeting of this new Association was held on Monday evening, the 10th of January, at the rooms of the Historical Society, in this city, and the following officers were elected for the ensuing year:—

President.—Hon. LUTHER BRADISH.

Vice Presidents.—Hon. THEODORE FREILINGHUYSEN; JAMES LENOX, Esq.; JAMES BOORMAN, Esq.; Dr. A. H. STEVENS; THOMAS A. EMMET, Esq.; HUGH MAXWELL, Esq.; STEPHEN WHITNEY, Esq.; SHEPARD KNAPP, Esq.; Vice Chancellor McCOUN; CYRUS MASON, D. D.; W. A. SEELEY, Esq.; J. S. LIVINGSTON, Esq.

Consulting Officers.—Major LE CONTE, U. S. A., Entomology and Zoology; Professor RENWICK, Mechanical Philosophy; W. C. REDFIELD, Esq., Geology; Professor TORREY, Botany; Professor DRAPER, Physiology; JOHN JOHNSON, Esq., Rural Architecture; Professor LOOMIS, Meteorology; Dr. D. P. GARDNER, Chemistry; D. J. BROWNE, Esq., Arboriculture.

Dr. C. C. GRICE, Veterinary Surgery.

Recording Secretary.—Dr. H. A. FIELD.

Corresponding Secretary.—D'JAY BROWNE.

Treasurer.—A. P. HALSEY, Esq.

Publishing Committee.—A. B. ALLEN, Esq.

Executive Committee.—The President and the two senior Vice Presidents; R. L. PELL, Esq.; Dr. J. W. DRAPER; ARCHIBALD RUSSEL, Esq.; EDWARD CLARK, Esq.; Dr. J. P. GARDNER.

Though suffering from a recent dislocation of his right shoulder, such was his interest in the good cause, that the President appeared at the hour appointed for the meeting of the Association, and after calling it to order, made an eloquent address.

An admirable and elaborate paper, replete with scientific detail, was read by W. A. Seeley, Esquire, proprietor of the *Wheat-Sheaf Farm*, on Staten Island, on Organic and Agricultural Chemistry, which elicited warm marks of approval, and has since been issued from the press.

The meeting was also addressed by Hugh Maxwell, Esq., Dr. A. H. Stevens, Professor Mason, Dr. Underhill, and others, in honor and praise of agricultural pursuits, and their tendency to promote the health and general happiness of our people.

The assemblage then adjourned to Monday evening, the third of March.

We may well congratulate the country on the formation of this Association, for it numbers already among its members several hundred of our most eminent and respectable citizens. The object of it is, to collect and diffuse correct information on Agriculture and its kindred sciences. It is proposed to accomplish this by the following means:

1. By founding a Museum of seeds, fruits, specimens of choice varieties of plants, models of implements and buildings; portraits of improved animals; together with a collection of geological specimens, and all other objects appertaining to agriculture.

2. The establishment of a Laboratory for the examination of manures, composts, marls—and the investigation of the mineral food of plants, fruits and seeds.

3. The establishment of an Agricultural Library.

4. The instituting practical and scientific experiments in these arts; and essays, papers, and lectures for publication in a series of transactions.

5. The discussion at stated meetings of topics in these arts.

6. The establishment of an interchange of soils, plants, fruits, seeds and scions, implements, engravings, &c., with other societies and individuals.

THE MEXICAN PHEASANT.—We are informed by a correspondent, that this splendid bird is of a peculiar species. It is nearly as large as a turkey, with shining black plumage, and a singular yellowish band at the insertion of the beak. We wish some of our wealthy merchants who send ships to that country, would import a few more pairs and acclimate them here. We have no doubt this may easily be done. They would prove a good addition and great ornament to the poultry-yard. We understand a pair of these birds were brought home in the *Eugenia*, the same vessel in which our late minister to China, Mr. Cushing, came passenger from Vera Cruz.

LARGE CROPS.—An unknown friend has had the kindness to send us the proceedings of the Tompkins County Agricultural Society, at its meeting in January. Much of the land in that section of the State is very fertile, and the people are remarkable for their intelligence, fine stock (especially of sheep), and the large crops they get from their land. Mr. John Selover, 2d, of Ithaca, raised from 2 acres, less 10 rods, 115 bushels (59 $\frac{1}{4}$ per acre) of wheat, weighing 60 lbs. per bushel; from 2 7-8 acres, 148 $\frac{1}{4}$ bushels of barley; and from 2 $\frac{1}{2}$ acres, 37 $\frac{1}{2}$ bushels of flaxseed. Mr. Brewer raised on 3 acres and 10 rods, about 15 bushels of clover seed.

SALT.—A quantity of soil taken out of a ditch, and full of docks, was entirely cleansed of them by the application of salt. 40 cwt. was added to the soil, and mixed for six months previous to being applied to three acres; this was spread in January on a useless kind of grass, that cattle would not eat; a good herbage immediately took its place, and it became the most valuable part of the field. Salt sown on turnip land, and also previous to sowing wheat, is of great value. A few handfuls of salt strewn over horse manure, immediately after being taken from the stable, combines with the ammonia and retains it. This is washed away by rains, unless protected from drainage.

European Agriculture.

Arrival at Havre.—I am travelling so rapidly that I am only enabled to put together, in a somewhat disjointed manner, a few observations on agriculture here, which I have thus far made. We had a somewhat rough passage of 24 days, and landed at Havre on the 5th December. We were agreeably disappointed in the French Custom-House officers; they merely glanced over our baggage, and dismissed us with all civility and politeness. During the two days that we spent in Havre, I found much that was new and interesting; but at this dreary season, nothing of much agricultural interest.

Gardens in Havre.—About half a mile from the Seine, Havre rises abruptly to the height of nearly 200 feet, and is then beautifully terraced with gardens and lawns, in the English style. Although in the depth of winter, and all deciduous trees consequently stripped of their foliage, these gardens were exceedingly beautiful. Commencing below, we were conducted by the gardener attached to one of these residences up the ascent, winding along the graceful curves of drives and walks, which were bordered by the closely shaved and bright green turf, and clumps of rhododendron, Portugal laurel, and the laurustinus, with its flowers just bursting into bloom; their rich glossy leaves presenting a very lively appearance at this dreary season. There were some rich thick masses of photinia, and a fine hedge of alaternus. In one place, a thorn hedge near a wall was so trimmed, that its top projected over upon the summit of the wall, and formed its continuation. The steep sides of the terraces were supported by walls, on which were trained pears, peaches, plums, and grapes, and occasionally they were covered with the dark rich foliage of the English ivy.

It struck me forcibly that this would be a beautiful covering for our rough stone walls in America. The ivy spreads very rapidly, and planted at distances of three or four feet, would very soon cover the whole of the wall and, instead of attenuated, irregular points and crevices, would then present a mass of foliage, forming a living fence, beautiful at all seasons of the year. (a) But to return to the garden. In one place successive terraced shelves, about two feet above each other, were cut out of the earth, and raised as a sort of stage for potted plants, when in flower.

We also visited the estate of M. Boisquard, the mayor of a town in the vicinity of Havre. Although stripped in a great measure of its foliage, this, too, was evidently a place of no common beauty. The lawn undulated on all sides from the house, and a circuitous drive of more than a mile was bordered with the lively evergreen shrubs, which formed so large an attraction in the other gardens. The turf was beautifully close and green, and we saw occasionally fine large specimens of the European hemlock, balsam fir, Norway spruce, elms, &c. There were also some fine hollies, both American and English. At the distance of about half a mile from the house were the green-house and stoves, which were heated by hot water. The green-house contained a good collection of camellias and other plants, well known to all amateurs; and in the stove were some rare orchideæ, ericas and cacti. The whole collection was good, although not equal to many I have seen in America.

Norman Horses.—In the stables of M. Boisquard we found a pair of very fine horses, of the Normandy breed. One was got by an English horse, but the other was pure Norman, and one of the noblest animals I ever saw. He was a brown, some 17 hands high, with immense chest and quarters, and yet he showed fine action. His depth of shoulder was nearly three feet, and his limbs were remarkably clean and well made. The groom told us he was sixteen years old, and that he would now travel fifteen miles per hour. His owner had refused 3,500 francs for him. The cart horses used here are mostly of Norman blood, but heavy and of medium size—being similar to our Canadians. They are used for carting to a distance, and with very heavy loads are driven entirely by the word of command, four and five in a team.

Paris.—On the morning of the 7th December we took the diligence for Paris, and rattled up to Rouen at the rate of ten miles an hour; sometimes with nine horses attached to our vehicle, and all at full gallop. At Rouen we took the rail-road, and arrived in Paris about ten o'clock at night. Here we found it cold and unpleasant, and remained merely sufficiently long to have our passports *viséed*, and to visit the Louvre and one or two other places of interest. We took the diligence for Marseilles. Although I visited the Jardin des Plantes at Paris, it was in so hurried a manner, that I shall reserve a description of it until I can give it a more thorough examination, on my return hither in the spring. I paid a flying visit to the horse-market, where were collected and exposed for sale about 1,000 horses. There were, however, no good ones among them; they were mostly poor crosses of the Normandy, a breed in its purity of fine bone and muscle; but when crossed with the poor French hackneys, producing a set of animals inferior in size, and adapted only for draught horses. Yet in no city have I seen a greater proportion of fine horses, than before the equipages at Paris.

Road to Chalons.—After leaving Paris we travelled at our usual rapid rate; but from our seat in the *coupé* of the diligence, with glass in front and at the sides, we could have a very good view of the country. It was mostly broad table land, slightly undulating, and very highly cultivated. I was pleased with the very straight plowing, in which some of our farmers might take lessons to advantage. The French plow is very rude and inconvenient.

On reaching Chalons, we took the steamer down the Saone to Lyons, and thence by the Rhone to Avignon and Beaucaire. The scenery on the Rhone is very fine, the Alps towering in the distance, and the intervening hills cultivated with vines to their very summits. Occasionally were seen a flock of sheep, with their shepherd and dog. From Beaucaire I came to Nismes. And now that I am sufficiently far south to feel a mild climate, I find much to enjoy.

Nismes and its Nurseries, Lucerne, the Olive and Madder.—I have not space on this sheet to give much of a description of Nismes and its vicinity. I have visited one of the largest nurseries in France, some fifteen or twenty miles distant. It belongs to the Frères Audibert. They have an immense collection, but there is not that order and system to which we are accustomed on Long Island. The olive is the principal article of cultivation here, and is an attractive object in the scenery, when it is planted in masses,

Lucerne is much cultivated here; and madder to some extent. I shall examine the cultivation of this latter crop minutely when we get to Sicily, where we propose going from Marseilles, and thence through Italy, Prussia, Austria, Belgium, and Holland, again to Paris, and thence to England, examining, as I go, all that is interesting in horticulture. I have sent home many new varieties of pears and other fruits, with some three hundred kinds of grapes, to be tested in our climate.

S. B. PARSONS.

Nismes, South of France, Jan. 22, 1845.

(a) We presume our correspondent means the Irish ivy, as this bears the English name on the Continent. It may be seen covering the front walls of the Hospital in this city, and the walls of Castle Garden on the Battery. It stands our climate perfectly; and is of a deep, rich green all winter. The Irish ivy is brighter and deeper in its color than the English, has much larger leaves, and grows four times as rapidly. We found, when in England, that it was fast taking the place of their own, being greatly preferred, for its superiority of growth and foliage.

CULTURE OF STRAWBERRIES.

I HAVE for several years practised with success the following method with my strawberry beds, and am therefore induced to offer it for publication in your paper.

The beds are to be formed in the usual manner, three feet in width, and marked by lines running lengthwise and transversely, the former being one, and the latter from two to four feet apart—the plants to be set at the intersections.

If Hovey's Seedling, Methven, Downton, or other variety requiring fertilizers be cultivated, three or four of them are sufficient for a bed, to be set at the points F, as in Fig. 13, and kept trimmed of their runners. Now commence raking the beds as often as necessary, not to *get out* the weeds and grass, but to *keep them out*.

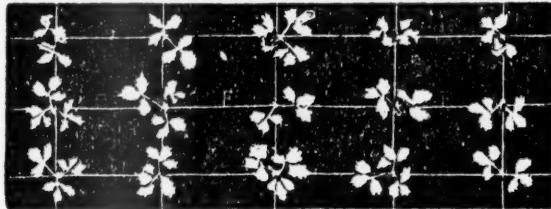


FIG. 13.

When the runners begin to grow, they are to be turned by the rake or hand to form rows one foot apart, lengthwise of the beds. The rake should be of light construction, about ten inches wide, and the teeth an inch and a-half long, and an inch apart.

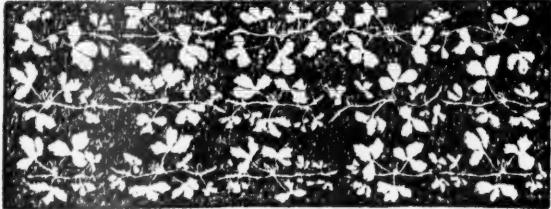


FIG. 14.

Towards the close of the season, when the rows are full, if plants are wanted for new beds, the run-

ners may be allowed to take root in the intermediate spaces, and the raking be discontinued. They must, however, be taken out of the way early in the succeeding spring. If not wanted for this purpose, they should be taken off by the rake or other more convenient instrument, and the spaces between the rows kept entirely clean.

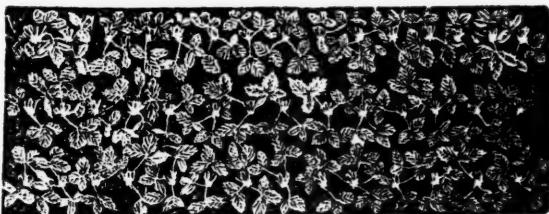


FIG. 15.

Late in the fall, or very early in the following spring (according to soil and climate), the beds should be slightly covered with litter of some kind for protection during the winter, if necessary, or at least to keep the berries from the ground. After bearing, the litter should be immediately taken off and the rake put in operation, which, with very little labor, seasonably applied, will keep the bed in excellent order.

After two or three years, when it becomes necessary to renew the beds, it can be done by hoeing out all but a few of the plants, and turning the runners into the rows, according to the process previously described. If there be occasion to apply manure to them, it can easily be worked in with a spade between the rows.

The above method is deemed preferable to that of cultivating the plants in hills, (the only other that should ever be thought of for a garden); first, on account of the greater facility in filling a bed with the requisite number of plants; and second, because that in a bed containing a greater number of plants, the operation of raking is both more easy and more effectual, and it must consequently yield a greater product. In the ordinary mode of culture, in which the vines are allowed to run at random all over the beds, and the weeds and grass, if removed at all, are to be pulled out by the fingers, the prospect is truly discouraging; and it is probably more for want of a better method than from any other cause, that so many are content to do without the fruit.

PHILETUS PHILLIPS.
Middletown Point, N. J., Feb., 1845.

MODEL OF A PRIZE HEIFER.—Francis Rotch, Esq., of Otsego, now in London, writes us that the Short-Horn heifer of Sir Charles Tempest, which took the prize of the gold medal, as the best animal at the Smithfield club exhibition, was as near perfection as an animal well can be. An artist, every way qualified for the task, has taken a model of her from minute measurement, and if \$75 can be made up, he will furnish thirty beautiful plaster casts of her fourteen inches long, which will make them cost \$2.50 there, or not to exceed \$3.00 each delivered here. This is a rare opportunity for gentlemen to furnish themselves with a superb model of a Durham cow, and we hope a subscription list will be immediately filled up for it. We will gladly forward any money sent us, to Mr. Rotch, for this purpose. A plaster model like the above, would be invaluable as a study to our breeders.

SHEEP HUSBANDRY IN SPAIN.—No. 3.

THE first thing to be done after the sheep return to their winter plains, is to prepare the toils, in which they are to pass their nights, lest they should stray away and fall into the jaws of the wolves. The "Rediles," or toils, consist of enclosures of net-work, with meshes a foot in width, and of the thickness of the finger, made of a species of rush, called "Espar-to" (*Lygeum Spartum*). This plant is also much used in the south of France and Spain, for making ropes, mats, baskets, &c., and was also employed for similar purposes by the ancient Romans.

About the end of December, the ewes begin to bring forth their young, which is the most toilsome and the most solicitous period of the pastoral life. The shepherds first separate the pregnant from the barren ewes, and conduct them to the best shelter, and the others to the bleaker parts of the district. As the lambs are yeaned, they are led apart with their dams to a more comfortable place. A third division is made of the lambs last brought forth, for which was allotted from the beginning the most fertile spot, of the sweetest feed, and of the best shelter, in order that they may grow with as much vigor as those first yeaned; for they must all set off the same day, in spring, towards their summer-quarters.

It is the interest of a proprietor to increase his flock to as large a number as the land allotted to it can possibly maintain; in consequence of which the sheep are always low kept. When a flock has arrived at that point, all further increase is useless, as there is but little sale for these sheep unless some neighboring cavaña has been reduced by mortality. Hence most of the lambs are killed as soon as they are yeaned, and each of those preserved is allowed to suck two or three ewes.

In the month of March, the shepherds perform four operations on the lambs, about the same time. They first cut off their tails five inches below the rump, in order to preserve cleanliness; they next brand them on the nose with a hot iron, making a permanent mark or character, indicating the flock to which they belong; and then saw off a portion of their horns, to prevent the rams from hurting one another, or the ewes. The fourth operation is to render impotent the lambs destined for docile bell-wethers, to walk at the head of each tribe. This is not done by making an incision, as with us, but by turning the testicles with the fingers twenty times round in the scrotum, twisting the spermatic cords, as a rope, and the parts wither away without danger.

As soon as the month of April arrives, which is the period of departure from the winter to the summer quarters, the sheep manifest, by various uneasy motions, a remarkable restlessness, and a strong desire to be off. At this time, it is necessary that the utmost vigilance should be exercised, lest the sheep should escape, as it has often happened that a tribe has stolen a forced march of three or four leagues upon a sleepy shepherd; but he is sure to find them by pursuing the same road over which they came the autumn before; and there are numerous instances of three or four strayed sheep walking a hundred leagues to the very pasture where they fed the preceding year. Thus they all go off towards their summer retreats in the same order as they came, only with this difference—the flocks which migrate to Old Castile are shorn on

the road, and those that go to Arragon, are shorn at their journey's end.

D'JAY BROWNE.

TO PREPARE BONES FOR MANURE.

A considerable number of bones are collected about my house, and I presume those of my neighbors, every year. I have long had an idea that these might be converted into a valuable manure on the spot, but am at a loss to know how to crush them. The ordinary mills are too far distant, and one on the farm would be too expensive. I tried to soften them at first by cheap acids or vinegar, but find it too troublesome and expensive. How would the following answer:—have a large stone mortar, with a heavy pestle attached to a spring pole? Can any of your readers furnish a hint on a subject of no small importance to farmers, and oblige your friend and occasional correspondent,

W. W.

Newark, N. J., Jan. 20, 1845.

We are of opinion that the pestle and mortar suggested by our correspondent would be entirely inefficient to crush bones, they are so hard. It would be easier to break them with a stone hammer. A cheap mill to move by horse power might be erected to grind for a neighborhood, upon the same plan as the old fashioned bark or oil mill, viz.: thick, heavy stones, fashioned like flour mill-stones, and placed upright, to follow each other in a circle, rolling over and crushing the bones. The principal value of bones is their phosphate of lime, which in the domestic animals varies usually from 50 to 70 per cent of their weight. In burning bones, but a small portion of this phosphate is lost; when, therefore, it is inconvenient to grind them, they may be burned, and the ashes applied to the land. A very simple and cheap furnace may be made for burning bones in the following manner. Build it up with brick or stone and lime, shaped like an oven, leaving a flue with a chimney a foot or two high at the top of the back end. In building it, when the walls are raised two feet or so from the ground, place iron bars across, within two or three inches of each other. These may be of cast iron, or old wagon-tire. When the furnace is completed, put a layer of fine split, dry wood on these bars, then a layer of bones, then another layer of wood, then bones again, till the furnace is full. Now set fire to the wood, and as the mass consumes the ashes fall below through the iron grate, and can then be removed as wanted. Rain should not be permitted to fall on these ashes before applying them to the land, as it will injuriously leach them. In burning bones the animal matter in them is lost. This varies from 20 to 45 per cent of their weight, and for some crops, such as wheat, &c., it is very valuable. We are of opinion, where no mill is convenient, that it would be more economical to break them up with hammers. It can be done under sheds in rainy weather; and it is not material to break them very fine, as they will decompose pretty rapidly, even coarsely broken.

IMPERIAL OATS.—We desire to call particular attention to the advertisement of these oats and a description of them in the February No.

FLOWS AND CULTIVATORS.—We have a very choice and complete assortment of these on hand See advertisement.

Agriculture in Scotland.—No. 5.

LIME.—Among agricultural subjects of interest, there are few more important than that of the use of lime, and scarcely any which in intercourse with the farmers of this country is more frequently recurred to. It has its place in almost every rotation, and in many districts is relied on as the chief means of restoring to fertility the exhausted soil, or of continuing the fertile soil in its best possible condition. With many farmers, indeed, the use of it has been carried so far as to prove injurious; from this and other causes, which I shall presently notice, have arisen the conflicting opinions upon the subject that may be found not only in different districts, but among persons who live in the same neighborhood.

I had the pleasure of attending, a few weeks since, a meeting of the St. Quivox Farmers' Club, in Ayr, a club distinguished for the zeal of its members in agricultural improvement. Mr. Campbell, of Craigie, and Mr. Burnett, of Gadgirth, whose experiments, especially those of the latter gentleman, have been so much quoted and commended in Professor Johnston's lectures, are the President and Vice President of the Club. The subject of lime was proposed for discussion, and each of the members was called upon by the president in succession, to state facts from his own experience and observation, and to give his peculiar views as to the benefits of lime, and its mode of action.

When lime was mentioned, I supposed that all would be agreed as to its merits, and that we should only have a series of illustrations of its virtues. My mistake was soon apparent, for scarcely any two coincided in their opinions. All had used lime more or less, but while some experienced from its employment the most striking benefits, others had been entirely disappointed; they had not perceived the least improvement in their crops, and declared their determination never to use it again. These contradictory statements, coming all of them from shrewd, practical men, were very perplexing to me, and continued so until Professor Johnston pointed out several circumstances which may account for what at first sight seem fatal and irreconcilable discrepancies.

First. Much of the land about Ayr, and farther inland, though not swampy, is wet: I saw rushes growing on some pasture fields to the very tops of the hills. Now, upon such land, in its natural state, the same striking and permanent effects are scarcely to be expected from the application of lime, as upon drier land, for much of its beneficial action results from its warming the soil, from its neutralizing noxious substances, and decomposing various compounds, thus fitting their ingredients to enter into the composition of plants. This action cannot, in anything approaching its full extent, take place where a great excess of water is present. Until such lands as the above are drained, therefore, the comparative failure of an equal dressing of lime should not excite surprise, or militate against the fact of its general usefulness.

Second. Throughout the coal formation which overspreads Ayr and Renfrewshires, the trap rocks in many places come to the surface. Trap is the geological name for a species of rock which is considered to be an ancient lava. It lay originally far below the coal formation, and when in a liquid molten state, forced its way upwards through them, and in

some instances even spread itself over the surface, like a gigantic mushroom, or a broad, thick blanket. Now, wherever this trap rock comes to the light, of course a soil differing from that of the coal measures is formed, a soil which we may confidently state to be at least partially supplied with *lime*. In confirmation of this, I give the results of a chemical examination of several specimens of traps, from various parts of Scotland, made in the Edinburgh laboratory, partly by myself, but chiefly by Mr. Fromberg, the first assistant. These analyses were made at Professor Johnston's suggestion, and under his direction, for the purpose of illustrating this very point; and they do so quite successfully. They all contain lime in three states—carbonate, soluble silicate, and insoluble silicate.

	Lime in state of Carbonate.	Soluble Silicate.	Insoluble Silicate.	Total Lime.	Total.
	per cent.	p. ct.	p. ct.	p. ct.	p. ct.
Trap from Balcarres Hill, Fife,	0.80	4.26	5.75	10.81	19.21
Trap from Pentland Hills,	8.19	0.12	2.78	11.09	19.74
Trap from Salisbury Crags,	3.02	2.18	2.48	7.68	13.64
" " decomposed,	0.72	0.71	0.91	2.34	4.16
Trap from Rothesay, Isle of Bute,	0.79	0.41	6.66	7.86	13.97
" " partially decomposed,	0.68	0.51	6.85	8.04	14.27
" " still more decomposed,	0.60	0.68	6.88	8.16	14.49

In explanation of this table, I may say, that the first column represents the lime which was present in the state of carbonate, and of course in a condition to be slowly dissolved by the gradual action of water alone containing carbonic acid, as rain water and the water in the soil always does. The second column represents that soluble in hydrochloric (muriatic) acid, by the aid of heat. This was in the state of soluble silicate. The third column represents that which was wholly insoluble in acid, and only obtained by fusing the powdered rock. This was all in the state of silicate of lime; that is, lime in combination with silica, commonly known as quartz. The fourth column represents the amount of caustic lime, or quicklime, and the fifth the amount of the whole, calculated as carbonate of lime, or common limestone, the form in which it is most familiarly known.

It will at once be obvious from an inspection of this table, that a rock which in every hundred pounds contains from six to ten pounds of quicklime, or from 13 to nearly 20 of carbonate of lime, must, as it gradually disintegrates, influence beneficially the character of the soil which it forms. The carbonate is at once available for the food of plants, and the silicates will in time decompose, and yield up their lime also, thus giving a steady and inexhaustible supply.

It is now easy, after what I have before stated respecting the varied character of the rocks in Ayrshire, to account for the contradictory opinions which prevail there. One farmer may be located upon one of these up-pourings of trap, while another in his immediate neighborhood may be upon the coal formation. The land of the last, being deficient in lime, will exhibit a wonderful improvement on its addition; the former may determine also to try its effect, and after much expense may be entirely disappointed. These two farmers will thenceforth hold entirely different sentiments; the last will protest that lime is of no use whatever, and the first will recommend it in all cases. But as we have seen that the land of the one already contained an abundance of lime, while the other had none, we perceive that both of their views are erroneous. It is only by looking be-

yond the bounds of a single farm, and taking into view all the circumstances, that such questions are to be decided. Lime in the state of carbonate, or sulphate (plaster of Paris), is a necessary constituent of all fertile soils, and is found in the ash of all our cultivated crops. When, therefore, a farmer finds little or no good effect resulting from its application, he would do well, in place of forthwith condemning it, to seek a solution in the physical condition, or the chemical constitution of his soil.

I might upon this subject present you with many interesting scientific generalizations, but I think it better for the present to leave to the careful consideration of your readers the above interesting illustration of the benefit of scientific investigation to practical agriculture.

JOHN P. NORTON.

Edinburgh, Jan. 1, 1845.

SWINEY—OR DISEASE OR STRAIN OF THE SHOULDER.

THIS is an affection not uncommon, but yet little understood. If of recent occurrence it will be seen that the shoulder is swelled; if of long standing, that the shoulder is diminished in size, the muscles having shrunk away. The shoulder is frequently shrunk when there is no disease in it. This shrinking arises from disuse of the muscles. To retain its full volume a muscle must have constant action. Now, disuse of the muscles of the shoulder may arise from two causes. 1st, lameness of the foot or leg; 2d, lameness of the shoulder. If it arise from the foot, no treatment is necessary for the shoulder. It may be easily known if it proceeds from the foot. In such case the horse, when he moves, lifts his foot clear from the ground; and when he points his foot forward, he places it flat on the ground. If the injury be in the shoulder, when he moves he drags the toe of the foot along the ground, seemingly unable to lift it clear; when he points his foot out, his toe only rests on the ground, not the sole of the foot. If the injury is in the shoulder the horse reluctantly turns his head towards the opposite shoulder; this strains the muscles; but he will willingly turn his head toward the lame shoulder, as this relaxes the muscles.

The common causes of shrinking or swiney of the shoulder, when it arises from the foot or injury to the leg below the shoulder, are all the diseases of the foot and leg, which continue long enough to occasion such a disease of the muscles of the shoulder as to occasion their shrinking. Such diseases are foot founder, contraction of the foot, strain of the navicular joint, ring-bone, pumiced foot, sand crack, quittor, gravel, any separation of the foot, in short, any of the various diseases of the foot which induce the horse to favor it and thus use as little as possible the whole leg and shoulder.

The shrinking of the shoulder, where it arises from an injury in the shoulder itself, has but one ordinary cause, viz., a strain of the shoulder. When there is strain of the shoulder, it is known at once. Within a few hours after its occurrence the shoulder is swelled, perhaps in its whole length, but generally only at the lower end. The strain lies almost always in the muscles which attach the shoulder-blade to the body; yet the swelling is on the outside; but this arises from sympathy.

When the horse is observed to be lame and it cannot at once be determined where the lameness is, let

him be walked, and if *he drag his toe*, it is in the shoulder. Let the shoulder be examined in front; if the affection be of long standing, the shoulder will be seen to be less than the other. If on feeling it, it be found to be free of heat, there will be no fever. The disease is then chronic. If, however, the shoulder be enlarged, it will be found, on feeling, to be hot—the injury is then recent and inflammatory. Where the disease is in the shoulder, and is chronic, it has gone through the inflammatory stage, and is of some considerable standing. The chronic state is rarely cured. It is not unlike rheumatism. For the *chronic state* the best remedy is active blistering. This will rouse the vessels to activity. It may be necessary to blister repeatedly, and exercise should accompany the blistering, with good grooming and general care. Let the exercise commence as soon as the blister begins to diminish its discharge. This treatment, continued judiciously and energetically for some time, may cure *chronic disease* of the shoulder. When the strain is recent, and inflammation exists, the horse should be bled from the neck and from the plate vein on the inside of the leg, as near the body as possible. Rest, cooling physic, both purgative and sedentary, should be given—no blistering should be allowed. Embrocations of a cooling nature should be applied. No stimulants should be applied externally, or given. They but add to the inflammation. When the inflammation is subdued and the shoulder has fallen back to its natural size, the horse needs nothing but rest, with gentle exercise. Let him be turned out, if in the summer, to grass; in the winter, into a small yard in good weather, and a loose box at night in bad weather. It will take him some time to get over the effects and be fit for work again.

When the shoulder is shrunk or swineyed from lameness in the foot or leg, below the shoulder, no attention should be paid to the shoulder. When both feet or legs are diseased, so that the horse seeks to relieve each alternately from pressure, both shoulders will be swineyed; they will be both shrunk, and the breast in front will be diminished and fall in. The treatment in these cases is to be addressed to the place of disease. If in the feet, cure them; if in the legs, cure them. Some diseases in the feet cannot be cured, and, of course, if there be swiney from such cause, it cannot be removed. When the feet and legs are cured, and the horse recovers thereby his wonted action, the muscles of the shoulder will, by exercise, recover their former size, and the swiney be gone.

Among the ignorant there is a variety of remedies for the swiney, as pegging (that is thrusting a knife in the shoulder and blowing in stimulating powders), swimming, setons, &c. A recent writer in the Southern Cultivator says, “introduce the small blade of a common pocket knife (the point of which must be sharp), into the thinnest part of the shoulder, which will be near the upper margin of the shoulder-blade, holding the knife as you would a pen when writing, and scratch up the membrane that covers the bone for a space the size of a silver dollar; the knife may be then withdrawn. The knife may then be introduced in one or two places below the first, and used in the same way, and the operation is over.” Now, if the disease be in the shoulder, this method can only cure by rousing the vessels to action. Blistering will do this better, and is more humane and less dan-

gerous. Wounded membranes frequently produce fatal inflammation. Blistering is never dangerous in chronic affections, and therefore is preferable on that score, and by general action does far better. It is done within two days. Scraping the membrane cannot be through its operation short of weeks.

Buffalo, Jan. 1845.

A. STEVENS.

PRODUCTS OF THE SOUTH.

In my preceding article, I dwelt on fruits as an important aid to our resources, not only as adding materially to gratification of taste, but also to health and our pecuniary concerns. I will now notice other matters, which, in my opinion, can be made entirely available for one or the other of the above purposes.

Tobacco.—Though there be many who spurn it, yet it is an article used, and in all probability as little detrimental as some others that are looked over. I possess no data to guide me in relation to the product that can be taken from an acre, but as to quality I can say some little. I have seen it growing here in small patches, have seen and used that cured, and think as to the size of leaf, and smoking qualities, that none superior have I seen in the Atlantic States from Maryland to South Carolina, in Kentucky or Tennessee. I do not profess to be a judge, though I have used the weed in all ways. A few days since, a friend handed me a segar, requesting my examination and opinion; after using it, I gave as my opinion that it was worth in New Orleans \$15 to \$18 per thousand. I was then informed that it was from the product of Cuba seed, made at Mr. Thos. Sumral's of Hinds Co., and sold by him at \$15 per thousand. I have also tried from that made by Mr. Jeff. Nailor, of Warren Co., and without the means of comparison, my memory alone to guide me, I prefer it. I have seen it at Dr. Geo. Smith's, in Warren; in Rankin, in Jefferson—and give my opinion that an intelligent negro can cultivate his tobacco patch and make segars enough in one year, at the price of \$15 per thousand, to nett double the wages that he would make at cotton, even at 8 cents per pound.

Rice.—An article that is used in all our country as a luxury, can be grown to any extent here without detracting much labor from the farm, to have it in abundance for all on the farm; and I make no doubt that labor for labor, and land for land, it will feed horses, mules, cattle, and hogs, cheaper than corn will. A friend from near Mississippi city informs me, that he has fed mules on it alone, no other fodder or corn, and that six bundles per day is full feed for a mule whilst at work; and when idle, that three bundles will keep a mule in fine order: he supposes the bundles to weigh not over 6 lbs. His crop of rice was very indifferent, not a fair criterion; yet he gathered about 1700 bundles from about one and a third acres, which would be full feeding for a mule a year. He farther says, that two crops can be cut from the same planting, with an after math that is well worth the attention of cattle or horses. The second crop is not one half as good for grain, but for fodder it is better. My friend and neighbor, Judge Noland, of Warren Co., one of the best farmers in Mississippi, has made this season sixty bushels per acre, and to use his words, "with no more labor to make it than I used in cultivating an acre of corn."

The difficulty is in cleaning to eat; yet I have no

question but that mortars and pestles, or a wooden mill, could be attached to our gin-gearing so as to require but little labor.

All know the nutritive qualities of rice; that it is almost the sole sustenance of many of God's people; it is, furthermore, remedial in cholera morbus or diarrhoea. The water from thoroughly cooked rice acts like a charm; it is also a good diet for invalids and sedentary persons—and as to food for stock, will not an acre, producing even forty bushels, feed more stock for a given time, than forty or fifty bushels of corn will?

Wheat.—I might add this grain to these our resources, as it is grown here successfully. Mr. McClaurin, of Simpson Co., assured me, that during thirteen years residence here, he had but one partial failure, and that he had grown forty bushels per acre. I am assured by highly creditable witnesses, that they have grown wheat in this and an adjoining county, that weighed sixty-four to sixty-eight pounds per bushel. I have grown some here on good land, the rust destroyed it; on thin land and a bad stand it yielded ten to 12 bushels per acre.

Madder and Indigo.—I might mention these, but why do so about these matters? My friends will not improve on it—they are not so incredulous as *indifferent* to change. They know well that they can grow corn, sweet potatoes, cow-peas, &c., yet many, far too many, buy corn, and do not save seed peas or potatoes for planting. The sweet potato crop can be made vastly profitable. The potato will feed everything on the farm, and excepting for man and dog, there is no need to cook it to induce the eating thereof; it will feed horses, cattle, hogs, and sheep, and prove a most valuable adjuvant to the milking qualities of cows.

There is a strange lassitude to well doing in our country, and withal, much pure, unadulterated laziness. My fellow citizens will for one year make enough corn and meat, which of course causes a decline in price; in another year they are buying—they will plant a tree, or fence in a garden, and leave both to be used up by grass and weeds.

There are many who do not relish vegetables, or mutton, or flowers; yet few refuse either the one or the other at our table, and seem greatly to admire the last, in our garden. The fact is, they are too indolent. It is no want of time or means; very little time or expense is required to give a superabundance of the first and the last. True, they may not be exceedingly fine, but they can be in plenty; and as to mutton, I am clearly of the opinion, and after reading the opinions of the friends of the north, south, east and west, that Mississippi, if not first in ability to raise wool, is not second to any State in means of raising the best mutton. No one in this region who has from ten to three hundred head of sheep, can tell what his sheep cost to keep them, if we except salt. We can provide green food for them the year round, at little cost of cash or time. We have an advantage in this matter in the cotton region, over any stock country—we can feed sheep on an article that costs us nothing to raise—I allude to cotton seed. This article will feed sheep all winter; and if a bushel of rye to four or five head of sheep be sown in cornfields after gathering corn, say about 1st of October, we can, with but little trouble,

keep sheep in excellent order all winter. In this way we can grow a full crop of our staple, and yet rear at least five to ten sheep to every hand.

I have known turnips grown at a near neighbor's, that measured thirty inches in circumference, with only expense of plowing and sowing.

Many of my friends will startle when I say to them, we can raise hay in sufficient quantities to admit of exportation. With millet grass, and our southern grass (Bermuda), I have no doubt that we can make hay for sale. I have cut at the rate of four tons of millet per acre, weighed by myself when thoroughly cured. True I never did this but once, and never had choice land sown with it but that once. I have never failed making a fair crop, and think two tons an average crop on good land, with time after cutting to make an excellent pasture of crab grass.

Unless I would undertake more than my time will now permit, I could not enumerate the many articles that we can grow with almost a certainty of profit. I have not touched on madder or silk, beans, pork, or beef, nor has any hint been given as to our facility of putting up barrel and hogshead staves of oak and cypress; the adaptation of some of our streams for manufacturers; the dairy, &c. I could much easier say what would not grow here—one thing I will say, send one of your most industrious, enterprising Yankees here, and if he succeeds in life so as to own ten or more darkies (which he is sure to do), he will assuredly hunt the shade. This is an awful country to bring an industrious man to—so I hear—I have no experience in it. Necessaries are easily made; a competency has heretofore been easy to acquire, and in consequence, all, whether from the White or Green Mountains, or the sandy plains, will soon take their ease and let indolence reign supreme.

M. W. PHILIPS.

Edwards Depot, Miss., Dec. 25, 1844.

THE MIDGE.

I MOST cheerfully comply with your request, and send you the history of the midge which I mentioned to you, as I have reason to believe its larva has often been taken for that of the Hessian fly, and is so described in some of the journals. This error, if error it be, should be noticed, and thus lead to a fair investigation of the truth.

The larva of the midge is found on the under side of the leaves of wheat, rye, and oats, feeding near the mid-rib, and on the tender portion of the stalk under the sheath, where it shelters itself during its final change. It is very minute, of a bright reddish brown color, moving freely from the point of the leaf to the sheath in search of food. In this state I found a number feeding on a wheat plant, which I carefully carried home and planted under a bell-glass, where it continued to grow, protected from the attacks of any other insect, until the larva had passed through the usual changes, and proved to be one of the family of Rove beetles, Staphylinidae of Linnæus, or Brachelytra of Westwood, who thus describes them:

"These insects are long, narrow and depressed in form, the abdomen is much longer than the elytra, beneath which the wings are of a large size, closely folded when at rest, the head is large, the jaws very powerful * * * the abdomen, from being uncovered by the elytra, is of the same consistence on the upper as on the under surface, and from its length, it is ca-

pable of great motion, and is employed in folding and unfolding the wings * * * these insects run and fly with equal agility. They are very voracious * * * some species feed on flowers. On the least appearance of danger, this insect immediately puts itself in a posture of defence, throwing the tail over the head like a scorpion, elevating its head, and widely opening its long and powerful jaws."

I have omitted much of Westwood's description of this family, giving that portion which bears more particularly on the species under notice, at the same time warning you that a magnifying glass is necessary to identify all its parts. This species, in the larva state, may be found feeding on the leaves of wheat, rye, and oats, in great abundance; but in the perfect state it feeds on the flowers exclusively, particularly the oat; I never remember to have opened an oat blossom, without finding from one to three.

During the oat harvest, these insects are borne on the breeze in countless numbers, too minute to be noticed, unless in the slanting rays of the sun they appear like motes in the atmosphere, or when they alight on the face or hand, calling your attention to their shining, attenuated forms, by their sharp sting, which they dart into you four or five times with the rapidity of thought, leaving a succession of painful and inflamed punctures. The injury done by the larva of this insect to the growing plant appears too slight to be noticed; but that upon the blossom may be of more consequence.

G. P.

CURE FOR FISTULA, OR POLL EVIL.—Clear the cavity as near as may well be, then fill it with powdered saleratus or pearlash.

CURE FOR PROUD FLESH IN WOUNDS.—Take equal quantities of soot and powdered charcoal, and sprinkle liberally in the wounds.

TO PREVENT MUST, OR MOWBURN, IN HAY.—Take a number of smooth poles, lay the butt ends outside, so that they may easily be pulled out; let the mow, or stack, settle for two or three days, then pull them out,—it will leave a passage for the air into the hay that will insure it against must or mowburn, for some distance around it.

The above recipes were handed me by Mr. H. Gallup of this place, and have proved successful in many instances, and if you deem them worthy of a place in the Agriculturist you may insert them.

O. JENNEY.

Norwalk, Huron County, Ohio.

We are highly pleased with the reception of all such matters from our worthy practical farmers, and solicit a continuation of them. They are among our best correspondents, and the only regret with us is, that they do not write often enough.

LARGE AVERAGE WEIGHT OF SWINE.—Having during the present season seen so many notices of the weight of what were considered heavy hogs, reported by the papers of Cincinnati, who prides herself in the sobriquet of *Porkopolis*, I am induced to give you a report from the real "Simon Pures" of the Miami tribe. The truth is, that these monsters cannot be driven more than half a dozen miles to market, and are consequently compelled to seek the nearest accommodation for being salted down. One of the clerks of our enterprising pork packers, Francis P. Tuty, has furnished me a list of 67 farmers in

this vicinity, from whom he purchased 1837 hogs, making an average of 334 60-100 lbs.; and when the world can beat such weights, old Butler County will try again.

R. H. HENDRICKSON.

Middletown, O., Jan. 27, 1845.

HOME-MADE GUANO.—No. 2.

Liquid Manure.—Besides the carbonate of ammonia, which exists in this in considerable proportions, it contains a large quantity of salts, or the earthy constituents of vegetables; among which, phosphate of lime is one of the most valuable. In the animal economy, most of these materials, which have been taken into the stomach as nutriment, are by the action of the kidneys separated from the contents of the intestines, and pass into the bladder with the urine, thus spoiling the faeces of its most important fertilizing properties. Hence, analytical chemistry has shown, that the urine of an animal is much more valuable as a manure than the solid excrements. Now, although this information, *in part*, may not be a new idea to thinking agriculturists, yet, *in its fullest extent*, it probably is to all who have not, either by direct and accurate experiment, or by the perusal of the best authorities, satisfied themselves of its truth. The remark is common among good farmers, that when cattle are permitted to drop their manure on straw or refuse hay, or turf (any vegetable or earthy absorbents), which is carefully protected from washing or evaporation, it is worth double or treble the same droppings when not so incorporated and treated; yet it has probably occurred to very few of them, that their increased value was due almost solely to the effectual absorption and retention of the urine.

The most economical and efficient method of securing this invaluable ingredient, is by the construction of tanks, of sufficient capacity to hold all that is voided till it can be properly applied. To give it the greatest value, it is necessary that it should undergo fermentation, by which ammonia is developed. This can be effected by having separate tanks, each of which, when filled, should be allowed to ferment, and may then be directly applied to the land, or incorporated with muck till wanted for use. Ten dollars per annum for each cow's urine, has for a long time been given by the close, calculating, and penurious Flemings; and it has been estimated by Professor Johnston, that if all the urine is saved, a single cow will yield 900 pounds of fertilizing materials, fully equivalent to an equal weight of the best Peruvian guano, which has hitherto commanded \$60 per ton in the English market. The farmers of the United States ought to be highly obliged to any of their friends who will suggest a more certain and rapid way of making their labor and capital productive, than in the construction of tanks for husbanding the urine of their horses and cattle, and applying their contents to their exhausted fields.

This practice, judiciously carried out, would add largely to the merits of the soiling system, where the urine by this means is properly economised. There is no doubt a great saving of labor to be made in the present manner of managing urine; for to prevent the escape of the ammonia while it is undergoing the putrefactive or fermentative process, it is required to add three times its quantity of water; otherwise a loss occurs in the unmixed of 85 per cent., or nearly six-sevenths of what would in the other case be re-

tained. The addition and subsequent removal of this large quantity of water must necessarily be attended with a good deal of labor; and it will hardly be considered as presuming too much on the prospective developments of agricultural chemistry, to believe that it will hereafter suggest such economical combinations as will enable the farmer to evaporate the large proportion of water which holds the valuable ingredients in solution, and allow him to carry as much of the fertilizing principle on to his fields in a small basket, as he is now enabled to draw with a span of horses in his hogshead.

Since penning the above, the practice of a shrewd farmer, as detailed in a Scotch paper, has fallen under my notice, which, as embodying as practical and perhaps as economical a method of treating liquid manure as is known, I subjoin.

"Liquid manure, if applied upon an impervious or gravelly soil, in a fresh state, is not retained long enough for its decomposition to take place, or for the roots to drink it up. It is put on a liquid manure, and runs off in the same state; but apply it to a soil rich in decayed or decaying vegetable matter, and on which a vigorous vegetation is going on, and it never fails of its extraordinary effects. The plan of administering liquid manures in a perfectly fresh state, is probably the best of any, were it not the continued care and consequent expense necessary in supplying our crops with saturated water in all their stages throughout the year, and were we certain of the exact strength of the solution suited to their wants.

"As we, therefore, cannot apply our liquid manures on the best principle, on account of the expense, we must try the next best plan, that of decomposing them by the aid of decomposed vegetable matter; and this can happily be done, to great perfection, by reducing the vegetable matter to the state of carbon or charcoal—which we make from peat, as being trifling in expense, easily pulverized, and withal an excellent manure of itself. We divide a shed into two compartments, one of which we make water-tight, by puddling the side walls with clay to the height, say, of two feet, and separated from the other compartment by a low water-tight wall or boarding. This is my fermenting tank, which is filled half or three parts full of pulverized burnt peat, and the liquid manure from the stable, pig-styes, &c., directed into it. This is mixed up with the pulverized peat, and allowed to remain three or four weeks, till the decomposition seems about completed, being occasionally stirred about after the composition has become about the consistency of gruel. The whole is then ladled (with a pole and bucket) over the low partition into the second floor, which is also three parts filled with the carbonized peat; and as the second floor is meant merely as a filter, we have it lower on one side than the other, by which means, in the course of a day or two, the carbonized peat is left comparatively dry. The water having passed off at the lower side, the first or fermenting floor is again filled as before, and the contents of the second floor, if considered saturated enough, are then shovelled up into a corner, and allowed to drip, and further dry till used, which may be either immediately, or at the end of twenty years, as scarcely anything will affect it, if not exposed to the continued washing of pure water, or exposed to the influence of the roots of growing plants. By

being thinly spread on a granary floor, it soon becomes perfectly dry, and suited to pass through drill machines.

"The mixing of the carbonized peat with the liquid manure on the first or fermenting floor, it will be observed, is for laying hold of the gaseous matters as they escape during the fermentation; perhaps other substances may effect this more effectually, but none so cheaply. I think by this plan it will be obvious to every one that a great many desiderata are at once obtained. In the first place, you get free of about 956 parts out of every 1,000 of the weight and bulk of manure, by the expulsion of the water; while at the same time you link all the fertilizing properties contained in it to one of the most handy vehicles—

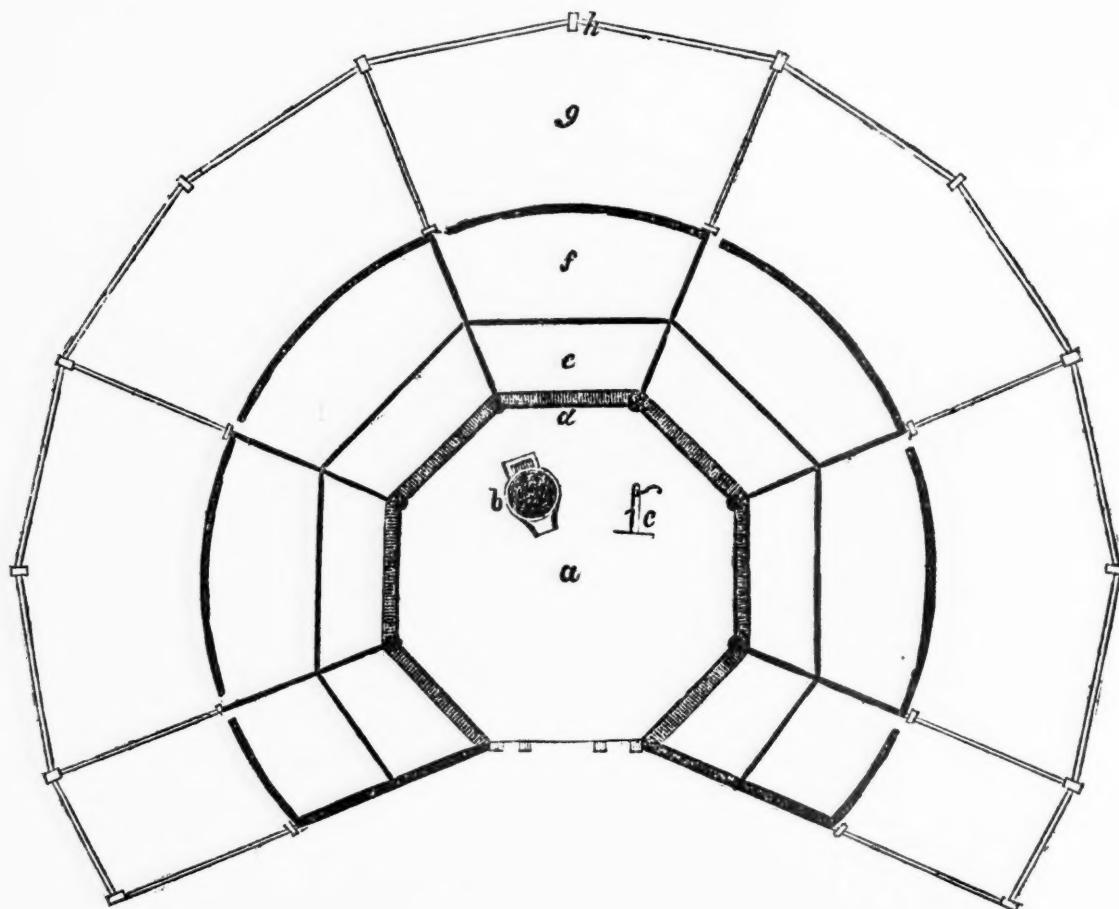
light, cleanly, and portable, and possessed of the peculiar property of holding together the most volatile substances, till gradually called forth by the exigencies of the growing plants. Lastly, you get free of the nasty tank, and the abominable hogshead and watering cart, with all its appendages, and are no more bothered with overflowing tank, or overfermented liquid, with weather unsuited to its application. You have merely to shovel past the saturated charcoal, and shovel in a little fresh stuff, and the process goes on again of its own "sweet will;" while the prepared stuffs lie ready for all crops, all seasons, and all times."

I shall speak of poudrette in my next article.

Buffalo, January, 1845.

R. L. A.

A PIGGERY.



GROUND PLAN OF PIGGERY.—FIG. 16.

THIS neat and tasteful plan of a piggery was prepared for us by W. Leavenworth, Esq., and we must confess, with all our experience in these matters, we think it the most convenient and economical that has yet fallen under our observation. The elevation, Fig. 17, shows a pigeon-house in front on the second story; but this can be dispensed with, and the front as well as back part devoted to anything else desired; or the piggery may be made of one story only. We make no calculation as to the cost of this building, for that will depend entirely upon circumstances; suffice it to say, it may be built as cheaply as on any other plan with equal accommodation.

a., Room for keeping the feed, utensils, &c., 24 feet diameter.

b., Boiler, by the side of which tubs for steaming, or receiving boiled food may be placed.

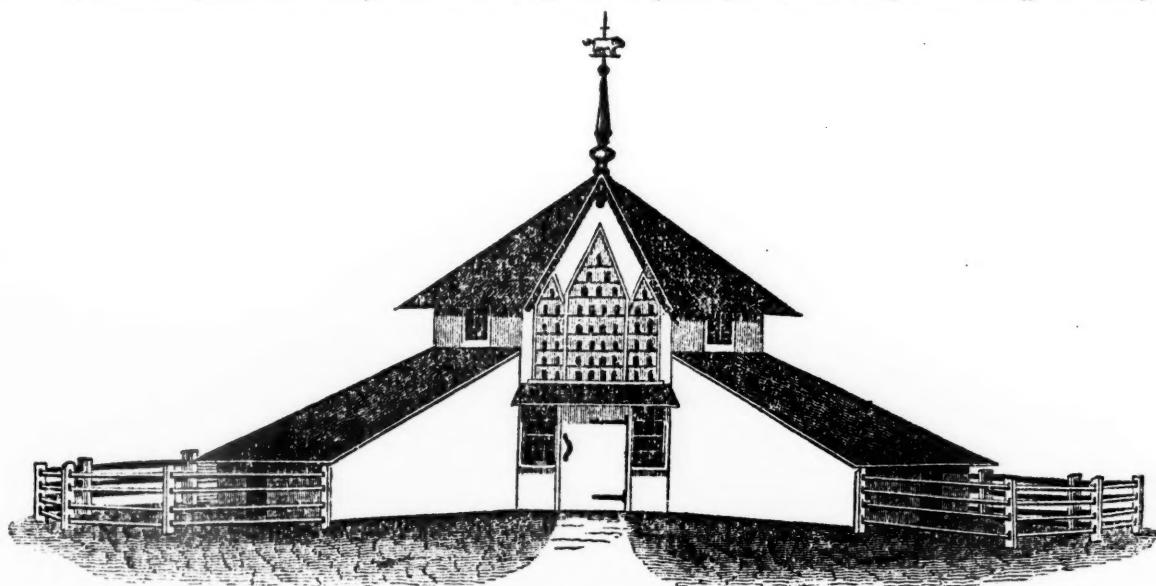
c., Pump. *d.*, Trough for feeding.

e., Room in which the pigs eat, 11 feet by 5.

f., Sleeping room, 14 feet by 7. A partition or not, as is desired, can be made between these two. We think one six inches or a foot high quite sufficient; and if this part of the floor was somewhat raised above the other, it would be kept drier. A swing door opens from this to the yard, into which the pigs can go and return to their sty at pleasure.

g., Yard with an open fence, as shown in Fig. 17, or a close one, if preferred.

The pig apartments *e*, *f*, can be made of any required size, as well as the yard *g*.



ELEVATION OF PIGGERY.—FIG. 17.

MANAGEMENT OF SHEEP IN FLORIDA.

I generally keep my sheep here in three separate and distinct pastures; two of them containing about 160 acres of land each, the other 40 to 50 acres. I permit them to run in one pasture some six or eight weeks, and then shift them to another; but from the small number that I now have, I have no doubt they would do well all the summer in one pasture alone, as the pastures are quite extensive. I have them salted once a week, driven up and penned every night, to see that none are missing, and likewise for the sake of the manure. I do not think I ever lost a sheep, unless it was from old age. I have no shelter for them whatever, as I do not conceive they require any in this climate, during the coldest weather that we have, which does not generally last more than three or four days at a time. I give them a few turnips, peas, or a little blade fodder once a day, permitting them at the same time to continue in the fields where we have housed our corn or cotton, as the case may be. I can keep four sheep here cheaper than you can one at the north, and much freer from disease of every kind. I am clearly of the opinion that sheep get too fat here on our crab grass pastures during the summer season. I have no doubt but the grazing in our piney lands would be better for them than our rich crab grass pastures, for I think there they would get all that nature requires, and they would not become burdensome to themselves.

I have at this time about 20 young lambs, and I find the early lambs make much the finest sheep. I do not intend, when I get into the business fully of growing wool, that any of my rams shall be permitted to run with the ewes after the last day of September; for I am fully convinced that late lambs will cause a degeneracy in the size of sheep in this climate. I have had some of your northern people to eat of the mutton I have raised here on my crab grass pastures, and they pronounce it superior in point of flavor to any they have tasted elsewhere. I should like very much to have you visit this section of country, so that I could point out to you the many advantages we have over the northern people in raising sheep.

As I am raising a considerable many fine horses, I make this inquiry of you—Are there any fine Canadian pony stallions of the large class in your section of

country that could be procured, and at what price? They are a breed of horses that would be valuable here.

D. W. H.

Marianna, Fa., Jan. 27, 1845.

Will any of our readers who have them, inform us, *post paid*, the price of first rate young Canadian pony stallions? Name the lowest figure at once, and give a general description of the animal. *Pacers* are preferred to *trotters* at the south.

OATS.

This grain is not cultivated in anything like the proportion that it should be at the south and west. It is one of our best grain crops at the north. We easily get from 30 to 65 bushels per acre here, and consider the straw as highly valuable for feeding to stock, especially when cut pretty green—as it may always be—without lessening the yield of grain. Chemical analysis affirms that 195 lbs. of oat straw are equal to 100 lbs. of good hay; for the same value, it requires 374 lbs. of wheat straw, and 442 of rye. Oats are so much more easily cultivated than corn, we are astonished that the planters of the south do not pay more attention to them. They need never be at the trouble of threshing, unless they prefer it. All they have to do is, cut them when the berry is in the milk, let them cure properly, then tie them up in small sheaves and stack them, being careful to leave an air hole in the centre of the stack, to let off any fermentation that may arise, and prevent heat and must, as explained with cuts in our first volume, page 335. As the oats are wanted for feed, they should be cut up, straw and all. A straw-cutter is best for this purpose; but it may be done with considerable ease and rapidity with a sharp broadaxe, on the head of a block standing three feet high. Oats, as we remarked in our January No., are infinitely better food for horses and mules—and, indeed, for all work animals—than corn, more especially in a hot climate. Corn abounds in oil, and only makes the animals fat; whereas oats give them hard, enduring muscle. Not one farmer in a hundred knows or appreciates this fact, and yet how important to him. The hardy, muscular peasantry of Scotland get their enduring flesh from eating oatmeal. It is better than Indian corn for hard-working men, as well as cattle, depend upon it.

BERMUDA OR BRAMA GRASS.

WE received some three months since, from that eminent friend of Agriculture, Thomas Spalding, Esq., of Georgia, a box containing various grasses, &c., all of which we shall endeavor to acclimate here, save No. 2. We must apologise to Mr. S. for the delay attending the appearance of his esteemed favor, as it got misplaced and was overlooked for our two preceding numbers. We should like to know whether orchard grass, herds grass, and red top, grow well in the lower or more southern parts of Georgia.

Sapelo Island, Nov. 4, 1844.

I herewith send you a box of grasses, because they may serve as resting points for my future correspondence.

No. 1. Marked on the side of the box, was introduced into Georgia by Gov. Ellis, in the year 1751. I suspect Bermuda is a corruption of Brama grass, for there is no grass of any kind growing in Bermuda, as I know from having been there myself on public business.

I send you a letter from Mr. James Couper (see below), the only botanist among us, whom I could with great difficulty induce to go into the examination (after I had received from Mr. Crawford the dried specimens), by sending Sir William Jones's 5th vol., 8vo. London edition, with the grass figured and described; 2d vol., of quarto edition, is quoted by the English botanists.

The deduction I draw from that examination is, that others before the Marquis of Hastings, had introduced the Doob grass into England, as Governor Ellis had done into Georgia, and that change of soil and climate, as every observer of vegetable growth well knows, had produced some change in color and form in the flower and seeding of the plant. In truth, we extend the culture exclusively by the grass itself. I am particular upon this subject, as I remember the first box of this grass that was ever carried into the interior, and now whole counties are covered with it, and there is fine grazing where, a few years back, cattle were perishing unless fed. Whenever cotton is given up, as it should be in the hill country of Georgia, it will become a great wheat and farming region. I have seen 1,000 bushels reaped from fifty acres, near Augusta, without manure, and with half the seed that should have been given to the land; and I have known the contractor for the troops of the United States to receive 1,500 bushels of wheat, weighing 70 lbs. to the bushel—this forty years ago, and before the little white wheat was introduced.

No. 2. The Gama grass, utterly worthless.

No. 3. A grass, which I believe is a variety of the blue grass of Kentucky (*poa pratensis*). This is a permanent grass, it is now growing well where I knew it to be growing sixty years ago. It has been neglected, and does not spread naturally, from the intense shade of our evergreen oaks. But I shall sow some seed, and transplant and divide some of the grass this winter.

No. 4. The branches and seed of the tallow-tree of China, introduced also by Governor Ellis into Georgia; it is a beautiful tree, and the seed now ripe. I know it will grow with you. The oil is contained in the seed, which is obtained by pounding the seed and then boiling. You must take off the outer skin and you will then see the ripe seed.

THOMAS SPALDING.

DEAR SIR,—Since writing to you from Hopeton, I have given the Bermuda grass a very attentive botanical examination, and have compared it with the plates and descriptions in Sir William Jones' and Sinclair's works. The result of this examination is, that if the *Durva*, *Dub*, or *Doob* grass of the Hindoos is not identical with the Bermuda, it differs by a very slight shade indeed. I believe them, however, to be the same, or at most, varieties of the same species. That they are of the same genus and species, there can be no doubt.

I have been turning over my books, and copy from them the following descriptions, which, being in confirmation of your original suggestion, may not be unacceptable to you, although they smack too much of the technical language and dryness of botany. The first is from the *Hortus Gramineus Woburnensis*, by George Sinclair, a work detailing the results of a very extended series of experiments, instituted by the Duke of Bedford, to ascertain the produce and nutritive qualities of the different grasses.

“*CYNODON DACTYLON*. Creeping dog’s-tooth grass.

“*Durva*, *Dub*, or *Doob* grass of the Hindoos.

“*Digitaria stolonifera*. Creeping finger-grass.

“*Panicum dactylon*. Creeping panic-grass.

“*Specific character*. Spikes four or five, crowded together; corolla smooth.

“*Observation*. The roots are tough and creeping, almost woody, with smooth fibres; stems also creeping to a great extent, matted, round, jointed, leafy, very smooth; leaves tapering, sharp-pointed, ribbed, hairy, a little glaucous, with long striated smooth sheaths, and a hairy stipula; spikes four or five, linear; flowers purplish, shining, ranged in two rows, close and alternate; the corolla is longer than the calyx, very much compressed, opposite.”

A. B. Lambert, Esq., in the transactions of the Linnæan Society, vol. 6, was the first to point out the identity of the *Panicum dactylon* with the Doob grass of the Hindoos. The seeds of this highly celebrated grass in India, were communicated to the Duke of Bedford from the East Indies, by the Marquis of Hastings. The seeds were sown in the experimental grass garden at Woburn Abbey, where they vegetated readily, and produced plants which flowered the second year from seed. These perfected seed in the month of October, and the plants raised from this seed the following spring, differed in no respect from those the produce of Indian seed. A portion of the seed was sown in the hothouse, and the plants cultivated there, in order to ascertain the effects of the climate on the habits of the grass. Exposed in the grass garden, and cultivated by the side of the English species, the habit of the Indian plants differed from the former in the shortness of the leaves, which grew nearly flat on the ground, and were of a reddish brown color, instead of the slight glaucous green tint of the native English plant. The foreign plants flower freely every season, but the native ones of this species of plants very seldom, for, during fifteen years, the native plants have twice only produced flowers. In the hothouse, the Indian plants proved of a habit exactly the same as the native plants in the open ground, having the leaves equally as long as those of the latter, of their glaucous color, and not producing any flowering culms. This last fact is a very remarkable one as connected with the long continual effects of different climates on the same species

of plants. In the hothouse, more soluble or nutritive matter, and also more vegetable or woody fibre, were afforded by this grass than was afforded by the plants of it, cultivated out of doors in the grass garden." *

"In the East Indies, the Doob grass grows luxuriantly, and is highly valued as food for horses, &c.; in this climate, however, it scarcely begins to vegetate till the month of June, and the above details show that its produce and nutritive powers here are not sufficiently great to hold out any hope that its valuable properties in the East Indies can be made available in the climate and soil of Britain. Sir William Jones gives a figure of the Doob grass, in his works, vol. 2, p. 58. The essential specific characters of the grass, as exhibited by Sir W. Jones, and those which our figure present, are precisely the same."

Elliott, in his *Botany of South Carolina and Georgia*, places the Bermuda grass as a *Digitaria dactylon*, and refers to the synonyms of *Panicum dactylon* (shown by *Lambert* to be the Doob grass), and *Cynodon dactylon* (proved by *Sinclair* to be identical with it). See his *Botany*, vol. 1, p. 133.

Pursh, in his *Flora Americæ*, describes the *Cynoden dactylon*, *Panicum dactylon*, *Digitaria dactylon*, as synonymous.

Generic character. *Calyx*, two valves, expanding, lanceolate; *corolla* larger, two valves; exterior valve larger and egg-shaped. *Nectar*, truncate. *Spike* (of flower), digitate; flowers, solitary.

Specific character. *Spikes*, digitate, spread out, hairy at their base, flowers solitary, stems creeping.

This description in every respect corresponds with the living plant.

Linnæus, in his *Systema Vegetabilium*, describes the *Panicum dactylon* to possess the same specific character as applied by *Pursh* to the *Cynoden dactylon*; in fact, *Pursh* uses his language.

In class and order, the Bermuda grass is *Triandria Digynia*. Its two purple, feathery stigmas, give it the beautiful appearance noticed by Sir William Jones.

The proof of the identity of the Doob and Bermuda grass, is therefore supported by our learned botanist, *Mr. Elliott*, who makes the latter the *Digitaria dactylon*, *Cynoden dactylon*, or *Panicum dactylon*; by *Sinclair*, who identifies the *Cynoden dactylon* with the *Doob* grass; and by *Lambert*, who also proves it to be the *Panicum dactylon*; and still further by *Pursh*, who shows the *Cynoden dactylon*, *Panicum dactylon*, and *Digitaria dactylon*, to be one and the same plant. There is a very close correspondence between the figures given by Sir William Jones and *Sinclair*. That of the latter is even more like the Bermuda grass than that of the former. The parts of fructification differ only in this, that the two rows of flowers on the spikes are less distinctly marked on the plants than in the plates. In the specimens which I have examined, the flowers are rather imbricated than arranged in distinct rows, as stated in *Sinclair's* description, and represented in his figure.

I offer no apology for this dry string of authorities, as I am aware that, to a mind like yours, anything which tends to illustrate what is useful, cannot be otherwise than interesting, and that the confirmation of a sagacious conjecture cannot but be gratifying.

With great respect, I am, dear sir, your most ob't serv't,

J. H. COUPER.

Sand Hills, Wayne Co., 15th June, 1826.

TOO MUCH LAND! TOO MUCH LAND!!

I cannot travel in any direction but I am constrained to make the above exclamation. There is scarcely a farm that I visit, but I see more to be done than the occupant has time or ability to do. The thing I am about to complain of now, may appear to some very trifling; but to me it is a great eyesore, to say the best of it. It is well known, however, that in a flat country, with a clay subsoil, water will find its resting-places where it is left to stand, and freeze over in the winter to make a sliding or skating place for boys, or to be evaporated by the sun in summer, making a barren spot in the midst of a fertile meadow or fruitful field, through the season. Now there is scarcely an acre of land to be found, not swampy (for of this I am not writing), but may be drained of its surface water by a single furrow leading into a ravine, either natural or artificial, taking the furrow or sod which is turned over, if in a meadow, to the manure or compost heap, throwing plenty of hay chaff into the furrow which immediately sods over, and you will scarcely perceive it at a little distance, although you may have occasion, in some cases, to run two or more furrows, and even to use the spade a little occasionally. The great excuse I know is, we have no time for these trifles. Then throw a few acres of your tillage land into mowing or pasture, cultivate less land and do it better, and you will find more money in your purse, besides having a beautiful landscape to look upon.

OCTOGENARIAN.

The following communication was sent us by private hand at the time of its date; but for some reason or other, of which we are not informed, was detained in Albany nearly one month before being mailed. Had it been promptly forwarded, it would have appeared in our February No. The public may depend upon the Herd Book being published as proposed, a number of gentlemen in this State having determined with Mr. Allen upon its issue, even if it only records the pedigrees of their own cattle; and those who delay sending in their pedigrees now, will not have an opportunity of doing so again for years, which will unquestionably be a cause of deep regret to them.

TO BREEDERS OF SHORT-HORN CATTLE.

In the month of May last I proposed, through the columns of the American Agriculturist, and other papers, to publish an American Herd Book, provided a sufficient demand for a work of that kind should be made in the manner there indicated. At the time I wrote the proposition, I had little confidence that it would be met with any general zeal or approbation, even by the breeders of Short-Horns throughout the country: and in this I have not been disappointed. It is apparent that a lethargy pervades among too many of our once spirited cattle-breeders, on the vitally important subject of preserving in an enduring form the genealogies of their individual herds; a course which, if persisted in, will ultimately lead, not only to their destruction, but to a large pecuniary loss to themselves, and awaken, when too late, deep and lasting regrets.

But the zeal of our American breeders is not altogether lost. A considerable number of enterprising and spirited gentlemen have manifested strongly their desire that the work shall proceed; and with characteristic liberality proposed such a patronage as shall procure its publication.

I propose, therefore, to commence the compilation of the Herd Book, as soon as sufficient material shall be transmitted to me for a commencement; and I now request all those gentlemen who wish their animals registered, to make out plain and distinct pedigrees of their stock, with all necessary references and particulars that may be important touching their lineage; and, if foreign animals, the date of their importation, and by whom made, together with such other facts as will best illustrate their history, &c. It is to be observed, that the object of this work is not to establish pedigrees, but to perpetuate them; and it may at once be remarked, that any animal whose purity of blood is not properly sustained, cannot be admitted within its pages. The English Herd Book was first published in 1822. Previous to that time, and for a few years immediately following, many valuable animals from among the best families of well-descended Short-Horns in England were imported into America, whose names and pedigrees are not to be found in its columns. Many breeders in England, not then appreciating the value of such a work, neglected to register their cattle, and these remained thus unnoticed, in many instances altogether, and in others, until the supplementary volumes were published. The descendants of those importations, preserved in their purity, and their history properly authenticated, will be admitted. But in all cases where references cannot be made directly to the English Herd Book, such facts and references as will place the lineage of the animals named beyond dispute, will be necessary to accompany the registers.

In one particular this will differ from the English registry. That work has neither note nor comment. To all but the initiated in Short-Horn lore, the pages of the Herd Book are as a sealed volume in all that relates to their origin, history, and present condition. Names of animals are often inserted without any reference whatever, apparently for no other purpose than to establish them as "Herd Book cattle." It will be otherwise in this. Interesting facts and illustrations will accompany pedigrees as they may occur, throwing light and information such as to place everything relating to this noble breed of cattle in the most attractive form, and develop in the best manner their advantages to the American farmer.

In all cases where the parties are unknown to the subscriber, either personally or by correspondence, they will please to give the name of some distinguished breeder or citizen of their own or a neighboring State, as a reference. This is not required through any suspicion of the entire integrity of any gentleman who may offer his cattle for registry, but as a rule for the mutual protection of each one who desires a true and unimpeachable record of Short-Horns (as far as it goes), in America.

As the magnitude of the work (in pages), will not be known till the materials are all collected, the price cannot be exactly stated; but at all events, it will not exceed three dollars per copy, as noted in the prospectus last May, deliverable as there stated.

All pedigrees, &c., are requested to be transmitted (if by mail, POST PAID), to me at Black Rock, N. Y.; or, if more convenient to the parties, to A. B. Allen, at the office of the American Agriculturist, 205 Broadway, N. Y. city; or to Caleb N. Bement, American Hotel, Albany, N. Y., who will duly forward them to me. The terms for registry will be one dollar for

a single animal, and fifty cents each for any larger number. To persons having ten or more animals, with simple pedigrees, a liberal deduction will be made from this last price, according to number. *The money invariably to be enclosed with the pedigrees.* Accompanying the pedigrees, the number of volumes subscribed for is also requested.

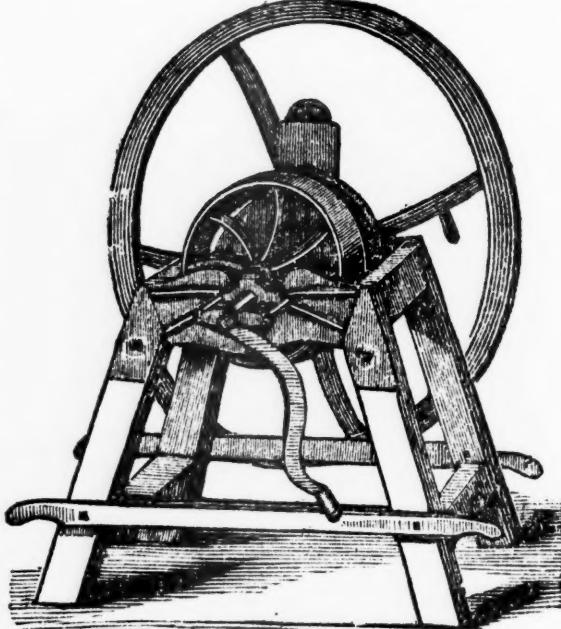
All papers to be forwarded as soon as possible: at all events before the first of April next, as the work will be put to press to be delivered to subscribers by the first day of June ensuing.

The insertion of this notice is respectfully requested in the Agricultural papers generally, a copy of which to be sent to me, for which a copy of the book will be presented. Any gentlemen who feel an interest in this subject, will do a favor by giving information of this proposed publication to any neighboring breeder of Short-Horns who may not otherwise obtain it.

LEWIS F. ALLEN.

Black Rock, January, 1845.

CORN AND COB CRUSHER.—Fig. 18.



The above corn and cob crusher is admirably adapted for plantation use; the construction is very simple, compact, and not easily put out of order. The grinding plates are made of the hardest composition metal, which will last from two to three years. After they are worn smooth, new plates may be substituted without difficulty; on the axle is attached a strong spiral knife, which cuts the cob in small pieces, preparatory to entering the plates.

Two horses will crush and grind eight bushels per hour, fine enough for feeding to cattle. Two men can work this machine with good success.

Directions.—1. Put on the balance wheel, minding that it is screwed up firmly.

2. Secure the machine to the floor or ground with wooden cleats and braces, and so situated as to have the pulley to range on a line with the horse power hand wheel.

3. Put the machine in motion, then feed the tube with ears of corn and screw up the side thumb-screw regularly until the grinding plates barely touch—if screwed up too close, the plates will wear out rapid-

ly, turn hard, and produce no material advantage: when set properly it will grind about eight bushels per hour.

4. See that the gudgeons are kept oiled with best lamp or sweet oil.

5. The proper speed to drive this machine is two hundred and fifty revolutions per minute, which cannot be accomplished except by horse-power. Two men can work it if the screws are slackened; the speed and grinding, however, will be slow, and the performance in proportion.

6. If the band stretches and becomes slack, move the crusher farther off.

7. Should the knife clog up and fail to operate, it may be cleaned out with the fingers, a stick or pointed iron. Should the plates clog (which may be the case if damp corn is ground), remove the band-pulley and the cap that covers the plates, and briskly rub through them a flat brush or stick.

Price, with one set extra plates, \$30.

R. SINCLAIR, JR., & Co.

Baltimore, Md., Feb. 13, 1845.

GUANO.

Advantages of Guano, &c.—Necessity of Fixed Prices.—I have read with much interest the Essay of Dr. Gardner on Guano, and beg leave to express my thanks for its publication, as also for the other contributions he has made to the cause of agriculture. I am unable, however, to coincide with him in opinion, that farmers should not become purchasers of guano, valuable as he admits it to be as a fertilizer. They are already, and will no doubt continue for a long time to come, purchasers of other fertilizing substances. Plaster, for instance, has for a long number of years been extensively used in various parts of our country, not always with profitable results. Clover seed, too, which may be regarded as an indirect fertilizer, is an article, in the purchase of which large sums are annually expended. In other forms, particularly in the vicinity of towns, the introduction of extraneous aid to the fertility of our soils has become a somewhat general practice. In the present state of agriculture then, the wisest policy would seem to be to encourage the making of such outlays as will yield the highest interest on the investment, and enable the farmer to prosecute the work of improvement which he has commenced. If guano, applied to a field of wheat in the fall or spring, will give an increased product equivalent to the cost of the manure, and at the same time secure the crop of clover, the farmer would unquestionably be a gainer; for a most important means of future improvement will at once have been obtained, and when the crop of clover is thus secured, clover seed for future use may be considered as secured also. Every farmer looks upon his soil as in the safe line of improvement, when he can get his clover fields to flourish. Will plaster, or putrescent manures in any quantity he can reasonably hope to make, produce this result with any certainty? Plaster certainly augments the vegetable growth where it acts favorably, but not the quantity of seed in the same proportion, if at all. For this reason, those who use plaster are almost always purchasers, instead of growers, of clover seed; and after the lapse of a few years, more or less, the plaster ceases entirely to act, and the clover to grow. I would therefore respectfully

submit whether it would not be better to promote the use of guano on such of our lands as stand in need of foreign aid? If lime, or marl, or ashes, were at hand, there would be less necessity to seek for other substances, farther than the land could supply within its own limits—such as litter, woods-earth, grass, clover, &c., in addition to the manure heap. Even then, guano would expedite the work of improvement. But in the absence of those bases of sure and permanent fertility, guano might be most profitably used on a large proportion of our poor soils, either in combination with plaster, or as a substitute for it—much more expensive, it is true, but far more certain and powerful in its effects.

But then the question may arise, is not the value of guano overrated? Can it be relied on to produce the astonishing effects which have been recorded of it? On this subject every farmer is competent to form a correct judgment, after carefully examining the testimony which has been published. In England and France it has been in use to a great extent; accurate and multiplied experiments have been made, and the results laid before the public. No more decisive evidence could be adduced on any doubtful or controverted point, and by common consent the practices of English agriculturists are entitled to great weight in our own country.

The chief object, however, which I had in view in writing this communication, is to suggest to the editors of agricultural journals in New York and Boston, the propriety of giving the prices of guano of the different varieties, either under the head of Prices Current, or by advertisement of the importers.(a) Farmers would then know at once what they have to pay, and whether they could afford it. In England, the value of "TILLAGES" is regularly quoted; Wm. K. George, of Baltimore, who is the agent for the sale of Peruvian guano in the United States, makes known his prices specifically, as per quantity, and these correspond with the prices in Liverpool. This is acting openly and above board. A contrary course is calculated to lead to the suspicion that the importer has no fixed price, but would be willing to receive one price from one purchaser, and another from another. The effect is injurious to the interests of both importer and consumer. In Baltimore, Richmond, and Petersburg, we get guano at £10 sterling per long ton, by the quantity, which is about two and one fourth cents a pound. Is the African guano (which is understood to be the variety brought into New York and Boston) sold at rates corresponding to the Liverpool prices for Ichaboe guano? namely, £5 to £5 10s. per ton.(b) I would like, amongst others, to call the attention of the editor of the N. E. Farmer to this matter, as he has rendered good service in promoting the introduction of guano into this country.

T. S. PLEASANTS.

Petersburgh, Va., Feb. 3, 1845.

(a) Our correspondent will notice that the prices of guano, bones, plaster, salt, and several other fertilizers or "tillages," are always to be found in our price current; in addition to this they are frequently advertised.

(b) No; it is not. In our judgment the African guano is held too high, considering its inferiority to the Peruvian. The price of Peruvian is fairly fixed, and corresponds with the Baltimore price. See Mr. Bartlett's advertisement in this No. of our paper.

MAKING MANURE.

MANY important suggestions have recently been made in regard to the management of farms; this all indicates improvement, or at least, a desire for improvement. In this general strife to excel, I perceive the farmer sometimes overlooks important realities, and grasps at profits that are imaginary.

Within the past year much attention has been given to the subject of manure. Many schemes have been tried to produce the largest quantity of the best quality at the least expense. No doubt some of these experiments have resulted favorably, and will prove ultimately of vast importance to the community, while others have proved an entire failure. Now my motto is, "a penny saved is as good as a penny earned." By a little care, much of this indispensable article may be saved, that on many farms through neglect is suffered to be lost. All farmers do not avail themselves of the advantages they have for making and saving manure. The barn-yard is the grand repository for manure, and when the farmer improves all the advantages to be derived from this source, it is certainly advisable to adopt other means to enlarge and improve his manure heap. Observation teaches me that it is impossible to estimate the exact loss of that man who pays no regard to the overflowings of his barn-yard. Often have I seen the yard well filled with litter for the comfort of cattle. This is commendable, for it serves another important purpose, by increasing the quantity of manure. This seems to satisfy, so far as concerns yard manure. Apparently no loss is apprehended from the freshets and thaws of the spring rains.

This is the great mistake; the yard overflows, and away goes the richest part of the manure to fertilize—perhaps, a bog swamp, or may be some public road. I am sustained in the assertion that the most valuable part of the manure is thus lost, by the fact that the liquid manures are the strongest, and that they unite and pass off with the surplus water. Thus the whole mass of straw, &c., becomes drenched, and a great part of the sediment goes to enrich, perhaps the ocean. The manures are thus robbed of their alkalies and salts. The remainder is probably not worth half as much now as before the overflowing took place.

To remedy this evil, I would suggest the propriety of preparing a reservoir contiguous to the lower part of the yard, sufficiently large to retain the overflowing. Puddle the reservoir with clay, or prepare it in some other way to prevent absorption. The water and sediment thus secured, possess all the properties of manure. When the weather will permit, return the water from the reservoir to the yard, water the whole mass of straw, &c., which by this time has become somewhat dry, and will readily absorb the liquid of which it had been robbed. Thus the lost being found and returned to its owner, restores all the value that had been before possessed. I am of the opinion that by adopting this method, farms will add at least fifty per cent. to the value of their yard manures.

B. C. D.

Trumbull, Ct., Feb. 5, 1845.

ASPARAGUS.—To improve the flavor of asparagus, and make it more delicate and tender, spread salt over the beds early this month. In addition to its value to asparagus, salt is beneficial in destroying insects,

and kills several kinds of weeds, and checks the growth of others. It is also a good manure to the land.

WESTERN CALENDAR FOR MARCH.

THE hemp-brakers should be still kept in motion every day that is fit for cleaning hemp, nor should the plows be suffered to stop. As some of the hemp-brakers must now be put to the plows, others must be hired to take their place at the hemp-brakes, so that both operations may progress together. Hemp-braking, if possible, should be finished this month, or early in the next; all hands will be required to assist in pitching the crop, and cultivating it in a proper manner. If the weather is not suitable for hemp-braking, all hands not engaged at the plows should be employed in making rails, repairing fences, and clearing up ground for the plows, if any such clearing is necessary; and this work should progress at all leisure times, when the ground is too wet to work, while any such repairs are necessary, and hands can be spared for the purpose.

The stock must be attended to as usual; but about the middle, sometimes the first of this month, in latitude 39° , sheep will do well upon pasture alone, especially if no stock has run upon it during the winter, or at least not later than the middle of January. Lambs should not be allowed to drop before the last of March, unless they are raised for the butcher. The ewes having now a good bite of pasture, will have a full flow of milk, and no lambs will be lost, or none of consequence.

If the season is a favorable one, and the ground not too wet, the sowing of hemp may commence about the middle of this month. Early sowing produces the *heaviest lint*, and although hemp sown as early as the middle of March, is liable to be checked in its growth by cold, dry, frosty weather, and will not, therefore, attain so great a height as that which is sown later, yet, in general, it produces a good yield of lint, and of first rate quality. Corn may also be planted from the middle to the last of this month. Severe frosts will nip the top blades, but hardly ever injure it to such an extent as to prevent it again growing. Early planted corn is much less liable to be injured by long summer drought, and is more certain of making a good crop than that which is planted late. Early planting is, therefore, strongly recommended. Early in this month (if not already done in the previous month, which would be better), tobacco growers must burn and prepare beds for sowing tobacco seed for plants. To bring these forward early, rich new ground, with a southeastern aspect, should be chosen. The beds, when sown, should be lightly covered with fine brush to keep them moist, and protect the young plants from frost. Early ripe tobacco cures of a finer color, and makes the most valuable article, hence the importance of having early plants. Early in this month, or late in February, which is better in latitude 39° , clover seed should be sown on growing wheat and rye, at the rate of a bushel of good clean seed to each ten acres. If sown with oats, it will do later, and may be put in with the oat crop whenever the ground is in suitable condition. Other grass seeds may also be sown early in this month. Timothy would do better in February, and Salem grass also.

A. BEATTY.

Prospect Hill, Ky.

Ladies' Department.**COUNTRY VISITING.**

BY MRS. KIRKLAND.

THERE is hardly any country village so small and unambitious, as not to have its debating society or its literary effort of some kind. Many a young man who has had good success in life, has ascribed the figure he has been able to make in court, or his reputation as a teacher, or his acceptableness in the pulpit, to an early opportunity for practice in his native village, and the taste for literature which naturally grows with such efforts.

This is excellent; why then confine it to young men? Why should not young women, too, make some attempt at improvement, in a mode suited to their position? We should never recommend to them debating societies or lyceums, but why should they be debarred from all social literary enjoyment?

Visiting is, as we all know, one of the chief of country pleasures. There is no girl so poor or so hard-worked, that she cannot, once in a while, make a sociable afternoon visit; and among the daughters of able farmers, perhaps, it is not too much to say, that an average of two afternoons per week is thus spent. After the day's business is well over, and the soil of the morning is carefully banished from person and dress, nothing is more natural and common than for the daughters of the house, and perhaps the mother too, to prepare themselves for a visit either at home or abroad; and among the plainer farmers, the knitting-work, and among those rather more ambitious, the neat bit of sewing, or even fancy-work, is taken in hand by way of sweetening leisure by some light employment. But what occupies the thoughts at such times? and what conversation cheers these golden hours of rest? As to thoughts, let us guess.

"I wonder," thinks the mother, "where that brood of turkeys has strayed to! Jem had no business to let them out! and the hens have got a trick of laying away too. We sha'n't have an egg. Mary!" she says, turning to her eldest daughter, "I don't believe the boys have ever hunted for eggs in that hole by the lime-kiln!"

Mary, thus withdrawn from a pleasing anticipation of the weaver's bringing home her new bedquilt, promises to go herself egg-hunting; and forthwith her thoughts branch away into some "mingled yarn" of equally valuable meditation, while the younger girls are giggling over the recollection of how Joe Pullen "carried on" at the minister's donation party.

Presently some of the neighbors come in with their work to sit the afternoon; and after they have taken the bandanna handkerchiefs off their heads and arranged them in their laps (an odious habit this, by the by, of wearing pocket handkerchiefs in place of bonnets), and settled themselves near the windows as the place of honor, they keep the ball of conversation rolling, as well as the ball of yarn, and the sum and substance of all they have to say is usually no more valuable than such as we have described.

Now why should this useless twaddle fill up the minds, and supply the talk, of intelligent women? They have usually had a tolerable school education, and those whose advantages are least, can read tolerably. Why not then endeavor, by the aid of books, to provide some materials for conversation better than

this? The evil is greater than may be supposed; for so powerful an engine as conversation can hardly be of indifferent operation. When it is simply frivolous it is injurious; but when it runs into scandal, ferreting out the faults and discussing the frailties of a neighborhood, it becomes indeed a curse, justifying the apostle's expression, "set on fire of hell."

How many of the lapses from virtue which take place in the country arise from the habit of suspecting and whispering evil of others, we cannot determine; but those who have lived among people whose conversation had no legitimate and proper materials, can testify that it is but a step from frivolity to corruption, in talk as in manners. How advantageous then would be the introduction of well selected books into social visits!

RECIPES.

Brawn or Head Cheese.—Blanc-mange.—Pig's-foot Oil.—Sore Throat.—Souse.—In a farmer's kitchen the stale adage is often verified, "God made nothing without its use," and the farmer's wife can testify there are various uses to which one thing often may be applied. An instance I can supply from my late country observations. Boil pig's feet—a dozen of them if you have them—for several hours, till the bones can easily be removed. Strain the liquor from them and set aside to cool. Remove the bones carefully, and reserve equal portions, if you choose, for souse and brawn or head cheese.

To make the latter, chop moderately fine, add sage and thyme, or sweet marjoram, plenty of pepper and salt, and if you like, a trifle of spice and a glass of wine. Tie all firmly when well mixed, into a crash cloth, which must first be well wrung in cold water, and let it stand in a press for twenty-four hours. You have then a handsome mould of head cheese.

A delicate blanc-mange, not inferior to the best isinglass, may be made of the jelly formed by the liquor when cold. From this you must first skim every particle of oil, which must be carefully preserved as it forms—

An excellent remedy for sore throat or croupy affections, externally applied, or simmered with molasses and vinegar, to give your children when the case demands it before retiring at night.

I see it lately asserted, that cattle's feet prepared in the same way for boiling as pig's feet, afford an equally good jelly for blanc-mange.

To make souse, add to the feet when well boiled, the pig's head. After boiling four or five hours, remove from both all the bones, and place the whole in a stone jar. Boil in vinegar a few cloves or any other spice, with pepper and a little salt; mix with this a little of the liquor in which they were boiled, to prevent too great acidity, and with this liquid cover the meat. Cut in slices when you use it, and after heating in a frying-pan, pour off the liquid and brown it; or if you prefer, dip the slices in batter and fry in a pan rubbed with butter or lard.

PROSA.

To IMPROVE THE FLAVOR OF COFFEE.—To each pound of roasted coffee add forty to fifty grains of carbonate of soda. In addition to improving the flavor, the soda makes the coffee more healthy, as it neutralizes the acid contained in the infusion.

GARDENS.—FLOWERS.

I TRUST, ladies, you will be enabled to induce the editor to keep up your department. It was the many valuable articles addressed to you in that old, but valuable work, the American Farmer, near twenty years past, which attached me greatly to agricultural publications. In our delightful winter climate, we are not without flowers all the year round. I find on page 3, of what I term my horticultural book for the present year, the following flowers out on the 3d of January, in the open air—the yellow jasmine, the violet, the flowering pear, the hyacinth, and the rose. In our vegetable garden, I find on the 4th page of the above work, that our cabbage plants, lettuce, and the green peas were up on the 4th inst. It is only necessary in this delightful climate, to use proper industry, not only to be supplied throughout the year with every kind of the finest vegetables, but it is in our power to have the most beautiful flower gardens; and how much it would add to the pleasure of life, if a taste for flowers could everywhere be cultivated! It would add to one's years, it would make us love home, we should feast our senses on the beauties of nature, and be with nature's God. How delighted I am when travelling through the country, to see the houses surrounded by handsome flower gardens; to witness the beautiful vines entwined around the windows of the cottage, and on the walls of the mansion. What a delightful employment for the fair ladies of our country! I trust that some of your numerous correspondents will take up the subject and do it the justice its great importance demands.

ALEXANDER McDONALD.

Eufala, Ala., Jan. 6, 1845.

BOILING POTATOES.—Not one housekeeper out of ten knows how to boil potatoes properly. Here is an Irish method, one of the best we know. Clean wash the potatoes and leave the skin on, then bring the water to a boil and throw them in. As soon as boiled soft enough for a fork to be easily thrust through them, dash some cold water into the pot, let the potatoes remain two minutes, and then pour off the water. This done, half remove the pot lid, and let the potatoes remain over a slow fire till the steam is evaporated, then peel and set them on the table in an *open* dish. Potatoes of a good kind thus cooked, will always be sweet, dry, and mealy. A covered dish is bad for potatoes, as it keeps the steam in, and makes them soft and watery.

PICKLING EGGS.—In England, at the season of the year when the stock of eggs is plentiful, they cause some four or six dozen to be boiled in a capacious saucepan, until they become quite hard. They then, after removing the shells, lay them carefully in large mouthed jars, and pour over them scalding vinegar, well seasoned with whole pepper, alspice, ginger, and a few cloves or garlic. Then, when cold, bung them down close. In a month they will be fit for use. Where eggs are plentiful, the above pickle is by no means expensive, and as an acetic accompaniment to cold meat, it cannot be outrivaled for piquancy and goût by the generality of pickles made in this country.

The above is doubtless a very good method of pickling eggs; but for our part, we prefer putting them down in salt, after dipping them in whitewash.

BAKED BEANS.—Shall I give your readers a hint or two for a very homely, but even to epicures sometimes, a very palatable dish if properly prepared? Carefully select and soak your beans the night before you wish them for the table; wash them thoroughly the next morning, and put them over the fire to simmer immediately after breakfast. When they have come to a boil, drain them carefully through a colander, then add fresh hot water from the teakettle, with a suitable piece of salt pork, and let them boil slowly till quite soft. Place the beans, with the liquor in which they were boiled, in a deep baking dish with the pork in the centre. The latter must first be neatly cut through the rind in cross strips a third of an inch in diameter. Bake them two hours in a moderate oven, or if you prefer the orthodox Connecticut mode, bake in a brick oven with your bread, &c. They may remain in all night with advantage.

PROSA.

A FRUIT, VEGETABLE, AND FLOWER MARKET.—A project is in contemplation in this city, which depends greatly on you, ladies, to carry into effect; and that is, the erection of a market for the sale exclusively of fruits, flowers and vegetables. Such markets are to be found in most of the cities of Europe, and are places of great pleasurable resort. No person can now visit our markets for the purchase of horticultural productions, without being disgusted with the smell of fish and offal, and the sight of meats and other things which are extremely disgusting to the refined. A market devoted exclusively as designed above, of handsome architecture, with a fountain playing in the centre, would soon become a place of delightful and instructive resort for thousands of our citizens who never go near them now, except when necessity forces them to do so. In case this goes into operation, women and girls should alone have the privilege of occupying the stands for the sale of all articles.

THE GARDEN.—This is usually the peculiar care of the ladies, and when well cultivated, it adds greatly to the pleasures and comforts of a country home. One of the first things to prepare this month is hot beds, the construction of which is so familiar and well known, that we need not go into particulars regarding them. The most important things in their management are, to give the plants plenty of steady heat at the bottom, and air on top, with a sufficiency of water; and yet be careful not to check their growth or expose them to sudden changes. Pretty much all that is necessary to be done this month, will be found under the head of the Northern and Southern calendars in our last volume, to which we must refer our fair readers.

LIQUID MANURES.—One of the best things to make all kinds of shrubs, vegetables, and flowers grow, is to water them with a liquid manure, made in the proportion of a pint of soot to a gallon of water. If a table spoonful of salt is added to this it will be all the better. Guano is now coming into extensive use, and may also be made into a liquid manure by steeping one pound of it in a gallon of water. Liquids thus prepared are quite powerful, and must be used in moderate quantities *around* the plants and *not on* them.

Boys' Department.

Boy's Poultry-House. The cheapest affair for a poultry-house, and the most easily constructed, is given by Mr. Ames in the Farmer's Library. Any handy lad, he says, can make one in a few hours, and the cost is very trifling.

"First, let a convenient and suitable place be chosen for the fowl-yard; not in a dark, shady corner, but in a light, airy situation; and, considering the number of fowls intended to be kept, mark its size: it is not well to have too many together, as the cocks will disagree. A stock of 25, containing 2 or 3 cocks, is sufficient for one house; if more are to be kept, erect another pen in a different direction; accordingly, mark out a place in the form of a circle of 18 or 24 feet in diameter. [Fifty feet would be better, so as to allow the sun to shine within more freely.] On the outside of this circle cut a trench 3 or 4 inches wide and deep, and plant poles 12 or 18 inches into the ground every 2 feet. These poles should be as thick as a man's arm, and 8 or 10 feet high, thus forming a circle of poles standing on end.



Boy's Poultry-House.—Fig. 20.

Choose a space to the south, between two of the poles, for the purpose of a door, and the poles on each side of this space should be straight, and a little stouter than the rest; then go to the swamp or brush-wood, and cut a good parcel of it, leaves, small twigs, and burrs, all just as it stands. It ought to be 6 feet long, that it may reach three of the poles, and if longer all the better; then having conveyed it to the standing poles, commence by lacing some of the stout and straight ones round the poles in the trench, alternately in and out, like basket-work, going the whole round, the door-way of course excepted. When you have got it 8 or 10 inches high, stamp it well down, making all tight and firm, that the smallest chicken may not be able to pass through it. Go on thus till you get it 5 feet high, then pass the circle of brush over door-way and all, to make it firmer and stronger, continuing it up to the height of 8 or 10 feet; the upper may be lighter and not braided so close; braid sometimes on one, and then on the other side of the uprights. Upon this principle a yard may be made of any size, and in any situation, for really nothing. Any boy can make a door for this, and fix it with hinges from the sole leather of an old shoe.

"Then comes the fowl-house; this should be placed in the centre of the circle, that no vermin may

get at it, and that the fowls may find shade and shelter all around, as the wind or sun may happen to be. A few stakes, a little more brush, and an arm-full of straw for thatch or roof, will make this answer; but one formed of boards with a good tight straw thatch, would be far preferable. Mind, I say, '*straw thatch*' for roof, as it is far the best thing; and if properly done, it will last twenty years. The sun, rain, and snow, have no effect on it. It is very warm in winter, and lets no heat through in summer. It should be formed of good, clean, long straw, clean-threshed, and as little broken as possible; wheat or rye is preferable: put it on 10 or 12 inches thick; I have seen it 18 inches. Tie it closely and securely with strips of white oak or hickory bark well twisted; but this every one knows how to perform. Mind and let the roof have a good pitch, or in other words, be very steep, that snow and rain may be quickly thrown off. To make this warmer in winter, the sides, either outside or within, may be laid with cedar brush and salt hay tacked up to the boards; or made of brush wicker-work, and then plastered outside and in with clay and short salt hay; and when dry, a good coat of lime white-wash. This gives a neat, pretty look, and is warm and cheap."

THE GAPES, OR PIP.—Mr. Bement, in his Poulterer's Companion, has gathered together all the supposed causes of this fatal disease in chickens, which we shall condense in a few lines for the benefit of our young readers. 1. It is attributed to catarrh, similar to the influenza in human beings; producing a thickened state of the membrane lining the nostrils, mouth, and tongue. 2. Small red worms in the windpipe. 3. Breeding from *old* cocks [which is doubtless an *old woman's notion*]. 4. Scanting the chickens in their food. 5. Giving them too much Indian meal pudding. 6. Want of pure water.

The symptoms of the gapes are so various, that we have no doubt they should be classed as distinct diseases, the same as physicians do those of the human family. It would be quite absurd to say that a child was affected with scarlet fever, when it only had a cold; or that it was suffering with worms, when gasping for breath with the croup; and yet these diseases do not seem at all more distinct to our comprehension, than those mentioned above under the head of "Gapes or Pip." It would be well worth while for some skilful surgeon to investigate these diseases, and write a work upon the subject.

The remedy for the catarrh, is to tear off the scale on the tongue with the nails of the forefinger and thumb, and then push down the throat a large lump of fresh butter which has previously been well mixed with Scotch snuff. But we think two or three teaspoonfuls of gravy, made of equal parts of butter, honey, and vinegar, would be better. To remove the worms, hold the chicken with his mouth wide open over tobacco smoke from one to two minutes; or what is better and more humane, tie the wings and legs of the chicken to prevent its struggling, take a small hen's feather, and strip it clean excepting a tuft of about an inch at the end, wet this slightly in spirits of turpentine, draw the neck of the chicken out straight, open its mouth wide, seize the tongue gently with a piece of muslin between the fingers to prevent its slipping, and then push the feather lightly down its windpipe two or three inches and twist it round,

and this will bring up more or less worms, and the chicken will usually sneeze out the remainder; if it does not, repeat the operation not more than two or three times the same day, till the windpipe is clear of them.

The gapes are said to be prevented by mixing a small quantity of spirits of turpentine with the food of chickens; wetting up the meal for their food with soap suds, or molasses, or a little asafoetida pounded fine, or vinegar, in which iron has been standing, or snuff, or rhubarb and cayenne pepper, or feeding them with coarse hommmony, and a pepper-corn now and then, or a piece of garlic.

Some think that the worm is the offspring of the lice on hens, which we think is impossible; others, that it is more generally picked up by the chicken out of dung heaps, either in the egg, or just after being hatched; others, that they are spawned in the windpipe by the parent worm and hatch out there; others, that the eggs are deposited on the nostrils of the chicken by a winged insect, and then hatch, and find their way into the windpipe.

Chickens are most affected with gapes in wet weather, when worms are most likely to breed; also when catarrhal complaints are most frequent. Keeping them up in a dry warm place during wet weather is a good protection. In addition to this, the hen house should be kept clean, warm, and dry, and be thoroughly whitewashed inside and out every spring and fall, with a wash made of lime pretty well sprinkled with salt.

We feel quite culpable in condensing so much from Mr. Bement's excellent little work; yet this should tempt our young readers now to purchase it, for they will find not only this subject but most others regarding poultry fully treated, together with handsome wood cut illustrations of the text. With this work in his library, and strict attention to its precepts, every boy would be able to raise fowls successfully and profitably.

BREAKING STEERS.—Now is a good time to commence breaking steers. For this purpose, bows and yokes of a suitable size must be prepared, which should be first put on them standing together in the stable after they have eaten their morning's fodder. When they have worn this an hour or so each day, for several days, they may be taken into the yard and be allowed to walk round a short time, and then unyoked. When well accustomed to their yoke, they should be placed between two other pair of cattle, and driven off a short distance without any load. Then they may be attached with the other team to a load, and depend upon it they will learn what is wanted of them, from seeing what other cattle do, faster and easier than in any other way. Never whip them or speak harshly. If they do not perform instantly all that is required, it is from ignorance generally, and not, as it is too often supposed, from obstinacy or viciousness. Then all you have got to do is, to teach them from the example of other well broke cattle. But when one has not other cattle to break them with, more attention will be necessary, and they will require guiding in their movements by a cord attached to their horns. The teamsters in New England excel in breaking and driving cattle, and they frequently have them so well taught, that they will perform single or together, in the yoke or

out of it, by mere word of command, anything reasonable which can be required of them.

The finest breed of working cattle is the Devon and its crosses. These are of a deep, bright red color, with orange colored noses, an orange rim round the eye, and a beautiful clean upturned horn of a clear yellowish white. Our farmers in this vicinity frequently send to Connecticut for such oxen. They are active, hardy, fine made animals, and capable of drawing very large loads. We have seen a pair of four year old steers start off at a full gallop with a load of 6000 lbs. at the cattle shows in New England, and then turn round and back the load on level ground with ease. This, however, is a large load for such young animals, and great care should be used lest they strain themselves in their ambitious efforts to move it. These oxen will plow an acre of ground as quick as a pair of horses; indeed, they oftener beat than get beaten at the plowing matches. We greatly admire such animals, and always kept them on our farm for work instead of horses. We found them more serviceable in the generality of farm work, while their gearing and food did not cost near as much as those of horses; and then if any accident happened to them they could be killed for beef, as we always kept them in good order. If an accident happens to a horse he is a dead loss, save his hide and shoes.

We do wish, boys, you could persuade your fathers to be more careful in their selections of bulls and cows to breed from. The beautiful pure Devons can be had at quite reasonable prices now. But you will use them at least, we hope, when you get to be grown men. Let the eye once get accustomed to the beauty and good points of this choice breed of cattle, and you would never forget them. How we wish your schoolmasters were able to instruct you in such things. We would engage to teach you more in a few hours' conversation, with some good live animals before us to illustrate it, than you could learn from books or by yourselves in half a life. Thus taught, you could not be imposed upon by those miserable cheating pedlars, with their grade animals, which they are continually palming off upon an ignorant public at low prices, for thorough breeds.

TO CATCH RABBITS.—We lately read in the London Gardner's Chronicle, a curious way of catching rabbits. Take a large crab or lobster, and stick a candle about an inch long on his back, light it, and then put him to the hole, over the mouth of which spread a net. He will not crawl far before the rabbit gets frightened, and runs out and is caught in the net. We think a good plan to catch woodchucks or ground hogs, would be to put a net over the mouth of their hole, then fasten a pitch pine knot, or some inflammable matter to the end of a pole and thrust it down the hole. We have often assisted, when a boy, in smoking woodchucks out of a hole, but it is a tedious process and often ineffectual.

AMOUNT OF PORK PACKED THIS SEASON AT THE WEST.—The Cincinnati Chronicle estimates the number of swine packed this season in Ohio, Indiana, Illinois, Kentucky, and Tennessee, at 592,870, against 933,600 last year; showing a deficit of 340,730. The weight per head is supposed to be at least 12 to 15 per cent less than last season.

FOREIGN AGRICULTURAL NEWS.

By the Steam-packet Hibernia, we have our European journals to the 4th of February.

MARKETS.—*Ashes* had rather a downward tendency. *Cotton* remains without change. Stock on hand on the 1st of February, 772,300 bales, against 625,300 of same date last year. *Flour* is dull, and had declined. *Provisions.*—Beef and Pork in demand at full prices; Butter, Cheese and Lard, have given way a little owing to the large arrivals. *Tallow* has fallen. *Tobacco.*—The consumption has increased in Great Britain 1,634,000 lbs. the past year. *Wool* was in brisk demand at full prices.

Money was plenty at 2½ per cent. interest.

American Stocks without change. The news of the payment of the Pennsylvania interest, as soon as known abroad, will have a favorable effect upon them.

The Consumption of Guano in England is enormous, it having reached 63,000 tons last year. The present year it is supposed it will amount to at least 150,000 tons. Prices were rising.

American Hops.—Under the new tariff these have found their way into England. They are said to be equal in flavor and quality to any ever grown in that country.

Great Butter Cows.—In Ireland five Kerry cows made last year 1,600 lbs. of butter, which is an average of 320 lbs. each.

Another Guano Island has been discovered in the neighborhood of Saldanha Bay, near the Cape of Good Hope, but the manure is of a poor quality.

Extraordinary Turnips.—Two turnips, grown on the farm of Mrs. Boothroyd, at Carcroft, were taken up the other day, and were found to measure, the first, 3 feet 11 inches round, and weighed 21½ lbs.; and the other 2 feet 10 inches, and the same weight as the other.

Pigs Nursed by a Cow.—A cow on the farm of W. Raven, Esq., at Gingley-on-the-Hill, may be seen two or three times a day laid on her side in the fold-yard, suckling a litter of pigs, nine in number, which have recently been taken from the sow. Several attempts have been made to drive her off, but she always returns, and has once or twice ran at the parties who have attempted to interfere with her in her maternal cares of the young litter.

Poultry Exported from Dublin to England during the Christmas week amounted to 500 tons, and was worth 50*l.* per ton.

"Does Charcoal Absorb Ammonia?"—Charcoal has the curious property of absorbing bad smells from all substances with which it may be brought into contact, when in a finely divided state. New made charcoal absorbs moisture with avidity. It also absorbs gases, and what is extraordinary, it has the power of condensing gases when so absorbed. This will be observable, in the following table by De Saussure, which gives the number of volumes of gas absorbed by one volume of box-wood charcoal, that is to say, one cubic inch of such charcoal will absorb the extraordinary quantity of 90 cubic inches of ammoniacal gas, and so on:—

Ammoniacal gas	- - - -	90
Muriatic acid	- - - -	85
Sulphurous acid	- - - -	65
Sulphuretted hydrogen	- - - -	55
Protoxide of azote (Nitrogen)	- - - -	40
Carbonic acid	- - - -	35
Olefiant	- - - -	35
Carbonic oxide	- - - -	9.42
Oxygen	- - - -	9.25
Azotic (nitrogen)	- - - -	7.5
Oxy-carburetted hydrogen	- - - -	5
Hydrogen	- - - -	1.75

As plants have the power of decomposing, or rather extracting from the charcoal, the gas which has been

thus absorbed, it would seem to us that the mechanical use of charcoal, in stables and cow-houses, would be almost equal, in retaining the ammonia, to the chemical use of gypsum.

Sago Palmist.—Of all the palm-trees which are natives of Asia, the sago palmist is one of the most useful and interesting; a liquor runs from the incisions made in its trunk, which readily ferments, and is both salutary and agreeable for drinking. The marrow, or pith of the tree, after undergoing a slight preparation, is the substance known by the name of sago in Europe, and so eminently useful in the list of nutritious food for the sick. The trunk and large leaves of the sago palmist are highly useful in the construction of buildings; the first furnishes planks for the carpenter, and the second a covering for the roof. From the leaves are also made cord, matting, and other articles of domestic use.

Weight of Soil of an Acre.—The soil of an acre of land, at the usual depth to which it is ploughed, weighs on an average about 700 tons.

Alpaca Wool.—The London import of this article amounted to 5,165 bales in 1844, against 3,667 bales in 1843, which shows an increase last year of 1,498 bales, or 41½ per cent. on the import of 1843. The alpaca, or goat's wool, now enters so largely into the manufactures of this district, and the demand for the fabrics composed of it, in whole or in part, is now so large and increasing, and the growth of it so apparently inadequate to the demand, that we must look forward to at least the maintenance of the very high prices to which the article has risen; and it may well be feared that the deficient supplies of alpaca wool may place a limit on the production of the manufactured article more contracted than that which the demand for it would prescribe.

Fattening of Geese.—At the last meeting of the French Academy of Sciences, a communication of some interest to the lovers of fat geese was made by M. Persoz, who appears to have gone into the affair *con amore*, and to have been fully imbued with the importance assigned to it. A hundred modes of fattening geese have been conceived, but most of those who have been engaged in the speculation have been of opinion that it was necessary the food should contain the elements of fat to be eliminated by the goose in the process of digestion. M. Persoz is of a different opinion. He contends that it is of no consequence whether the food be of the kind alluded to or not, as the goose, he says, forms in the process of digestion fat from any food, if it contains a certain proportion of azote. We hope M. Persoz will also show that it is not necessary in the fattening of geese to expose them to the tortures practised by many feeders, such as nailing them by the feet and confining them in a narrow space to prevent motion. We have no objection to partake of a good fat goose, if the feeding be merely the result of abundance of wholesome food, but we confess that we never see a fat goose, and, above all, a large goose liver, without thinking of the inhumanity frequently resorted to in order to make the feeding of these poor animals a successful speculation.—*New Far. Journal.*

Steeping Seeds.—In March last, some Pink-seeds were steeped in a solution of sulphate of ammonia, another parcel in nitrate of soda, and a third in a mixture of lime, salt, and hen's-dung. A quantity of Pink-seed was sown at the same time, in the usual way. The seeds in sulphate of ammonia grew very quickly, and are now the largest plants of this year's sowing. Those in nitrate did no good, three only surviving; and those in the mixture failed altogether.

Longevity of a Horse.—A horse, the property of Mr. John Lambert, Thornton-in-Lonsdale, died last week in the forty-second year of its age. It worked as usual until a day or two previous to its death.

To Destroy Sorrel in Grass Lands.—Sorrel abounds in the proportion of the free humic acid in the soil, and it can be eradicated by the use of calcareous manure, such as soapmakers' waste, carbonate of lime.

To Neutralize the Humates in Water.—Put a small piece of lime, or, better still, a little lime water into it, and the water will become clear and palatable.

Farming by the Insane.—The inmates of one of the insane hospitals in France, have been gradually brought on to a farm in the neighborhood to perform its daily work. This has not only been attended with considerable profit to the establishment, but it has also had a very happy effect on the health and temperament of those employed. The system of thus employing the insane is now spreading rapidly in France.

Whole Potatoes best for Planting.—These generally insure a tolerable crop in all seasons, and are said to prevent the dry rot in hot weather, and rottenness in wet weather which cut pieces are so liable to.

To Grow Fine Early Strawberries.—As it is of great importance, in growing strawberries in the open air, to make them produce fine fruit as early as possible, without loss by frogs or slugs, &c., which loss is generally very great, the following plan may be found useful: Fix on each side of the row of strawberries, just before they come into blossom, feather-edged boards at an angle of fifty or sixty degrees. This may be effected by nailing two narrow strips of wood to each board, and pushing them into the ground. The boards should be painted black. This plan makes two or three weeks' difference in the ripening of the fruit; but glass, or an oiled paper frame, being placed on the top, makes a greater difference still, and prevents any of the fruit from being trod upon, or eaten by vermin. This plan, at first sight, may appear to be an expensive one, but it is not so; any old boards will answer the purpose. I have bought old feather-edged boards at $\frac{1}{2}d.$ per foot; and, as they are only used in summer, they last for many years. The expense is saved in the first year; for the wood, although painted on each side with a coat of invisible green, costs only about $1\frac{1}{2}d.$ the foot; while the increase of fruit in quantity, as well as in quality, quite compensates for the outlay. In conclusion I may observe, that watering with strong liquid manure two or three times in the month of February, and frequent waterings during bearing time with pond-water, are, I have found, very beneficial.—*Gardeners' Chronicle.*

Dry Rot in Timber.—I have had a great deal to do with this, and I have tried many remedies, but have found none to answer except the following, which I tried about four years ago. I took 3 lbs. of corrosive sublimate, and put it into a large glazed earthen pot; to this I put about four gallons of water, and when it was well dissolved I took a large painter's brush, and washed the timber and walls with the water, and no symptoms of rot have made their appearance since.—*Ibid.*

Productive Variety of Apple.—The Rymer Apple, Caldwell, or Cordwall, as it appears to be called near Nottingham, proves a most productive and valuable sort. The following note accompanied a specimen of the fruit: The tree will cover 100 yards; and 240 pecks have been gathered from one tree and sold for 14*l.* 15*s.* 8*d.*—*Ibid.*

Salt and Lime.—A correspondent of the Farmers' Magazine recommends a mixture in a dry state of five quarters of lime and two and a half of salt for every acre, and allow the mass to remain undisturbed for three months before using. A double decomposition is thereby effected, and two new and valuable salts formed—carbonate of lime and muriate of soda. On a farm of heavy soil, subsoil yellow clay, this mixture is used as a top-dressing for wheat, oats, and barley, applied in March or April. The grain is thereby increased in quantity, and both grain and straw in quality. Light grain is thus entirely prevented. These salts not being volatile are always applied as a top-dressing.

The Himalayan Cedar.—Its botanical range extends from seven thousand to twelve thousand feet above the level of the sea; and in its most congenial locality it attains a great height, and a circumference of above thirty feet. When young it closely resembles the real cedar, but never sends forth spreading branches. So durable is its timber, that some used in building one of the wooden bridges over the Jhelum, was found little decayed after exposure to the weather for above four hundred years.

The Discovery of the true Food of Plants, with a Sketch of the Physiology of Agriculture.—Prof. Schultz of Berlin, has just published his views on these subjects, which are very different from those heretofore generally received. He says, 1. The hitherto received theory, that carbonic acid is the principal food of plants, is erroneous, and altogether without foundation in nature. Carbonic acid is absorbed by the roots merely incidentally, together with their food, and is decomposed at the same time with it, but with great difficulty, by means of the leaves; whilst the large quantity of oxygen which plants exhale has a very different origin. 2. There is no proof of the truth of the assumption connected with the carbonic acid theory, that water is decomposed and assimilated by plants. 3. The view hitherto adopted with the carbonic acid theory, that plants feed on unaltered humic acid and salts of humic acid, is also wrong, inasmuch as plants never absorb unaltered humic acid, humus extract, and salts of humic acid. 4. The true food of plants is rather the azotised humus in the vicinity of the roots, which is converted into other substances by their digesting action.

Inversion of the Uterus.—Before we begin to return it to its natural situation we must have plenty of assistance at hand, and, if possible, get the cow to stand up if she is down. One of the assistants should lay hold of her by the horn and nose, another should press down her back, or goad her to keep her, if possible, quiet. If it is a mare put the twitch, or side line, or hobbles on. We should then lift the uterus on a clean cloth, which should be supported by a person on each side; then separate the placenta from the cotyledons [part of the inside of womb], in doing which we should be careful of not tearing any of them off, though I have seen some of them accidentally removed without any ill effect. If it is dirty, wash and clean it with warm milk and water, or any mucilaginous decoction of herbs. We should then place our clenched fist against the fundus, or extreme end of the uterus and force it again into its proper place. In doing so, we should, with our other hand and other assistants, gradually and steadily force the side of the uterus in, and which will, in a great measure, take off a deal off the pressure caused by the fist, and which might otherwise rupture the uterus. It will generally be found that when about half of it is returned it will begin to slip in very easily. We must be careful to pass our arm sufficiently far up in the body until the whole of the uterus has become re-inverted. Some persons are in the habit of placing a clean napkin over the fist and arm, which, perhaps, may assist in drawing in the sides of the uterus, by becoming in a measure attached to it. It may also prevent inoculation of the arm, which I have in several instances experienced to a painful degree.—*Veterinarian.*

Gooseberry Caterpillar.—To prevent the attack of this pestiferous insect, when the plants are beginning to open their leaf-buds, dust the whole of them over with dry soot. This simple method has never been known to fail.

Editor's Table.

GENESEE FARMER.—We notice that this excellent work has changed its quarto form to the octavo. It now contains 16 pages, and is issued monthly—price 50 cents a year. Published by B. F. Smith & Co., at Rochester, N. Y. Dr. Lee has become its editor—an able man, and we are certain he will make a highly useful periodical of it. We wish it a large circulation.

BOSTON CULTIVATOR.—Is a weekly folio of eight pages; published at Boston, Mass., by Otis Brewer—price \$2 a year. It is a family Newspaper, as well as an agricultural work; and we are informed that it has a circulation of 11,000, which is *larger* than that of any agricultural paper we know. We do not understand how our neighbors of the north have got so far ahead of our old New Yorkers. It is edited by Messrs. Brewer, Cole & Pedder. It commences the present year in a very handsome new dress. May it still further increase its subscription list.

THE ALBION.—We notice that J. S. Skinner, Esq., of Washington, has commenced an Agricultural Department in this sterling journal. Mr. Skinner was the originator, and for a long time the editor of the American Farmer, and we are confident he will fill the columns given to him with useful and instructive agricultural matter. The Albion is the only paper in this city which is mainly devoted to British and Colonial news, Parliamentary debates, literature, science, art, &c., &c. It is an admirable paper for the wanderer from the fast-anchored isle, who may still have a lingering love of the place of his birth, or who feels any interest in the affairs of its vast and multifarious empire. The Albion is a weekly folio of twelve pages. Published at 3 Barclay street. Price \$6 a-year.

THE AMERICAN REVIEW; A Whig Journal of Politics, Literature, Art, and Science. Edited by G. H. Colton, 118 Nassau street, and published by Wiley & Putnam, 161 Broadway, N. Y., pp. 112. Price \$5 a year. This work is started, like the Democratic Review, to uphold and support the principles of its party, and general literature. It is ably conducted, and well worthy the patronage of the public. No. 1, for January, contains superb portraits of Henry Clay and Theodore Frelinghuysen.

GUANO, its Origin, Properties, and Uses; showing its importance to the Farmers of the United States as a cheap and valuable manure; with directions for using it. This is a neat pamphlet of 80 pages, from the press of Wiley & Putnam, 161 Broadway, by Edwin Bartlett, of 42 South street, N. Y., who keeps the pure Peruvian for sale—see advertisement. It is the best manual on Guano we know for the American farmer, as it contains many experiments of its use in our own country, and the method of applying it in Peru on Indian corn. We will send the pamphlet *gratis* to any one desiring it. Mr. Bartlett will also do the same.

AMERICAN QUARTERLY JOURNAL OF AGRICULTURE AND SCIENCE.—Conducted by Dr. E. Emmons and Dr. A. J. Prime, 8vo., pp. 184; price \$3 a-year. This long looked for journal has at length appeared, abounding with well considered and able articles, of rather a scientific than practical cast. About one half of the present number is made up of original contributions, the other part is selections from foreign and domestic agricultural periodicals. The American Quarterly has our best wishes for its success, and we shall be happy to aid in its circulation by taking subscriptions for it at this office. It is handsomely got up, and highly deserving public patronage. Its editors and contributors are all able and well informed men.

MAINE FARMER.—This large and handsome weekly folio, published at Augusta, Me., at \$2 a year, and ed-

ited by the facetious Dr. Holmes, keeps steadily on its way rejoicing. It is a good family paper, and deserving of as many subscribers as were ever grown Quoddy-blue potatoes upon an acre of the richest Maine land, cultivated in the best possible style by the indefatigable neighbors of the blue-noses.

FINAL REPORT ON THE GEOLOGY AND MINERALOGY OF NEW HAMPSHIRE; with contributions towards the improvement of Agriculture and Metallurgy. By Charles T. Jackson, M.D. Concord, N. H. Published by order of the Legislature, pp. 376, quarto: 1844. Price stitched \$3 50. We have been highly gratified in perusing the above Report, and think New Hampshire was judicious as well as fortunate in employing a person well skilled in his profession, to perform so important an undertaking. Dr. Jackson has long been favorably known in this country, as well as abroad, as an able analytical chemist, and as having made geological surveys of several of the New England States, and particular examinations of the chief mineral regions of North America. Although New Hampshire embraces but a small extent of territory, the survey occupied more than five years, during which time, he examined all the important localities in the State; made several hundred barometrical and thermometrical observations for the purpose of determining the height of mountains and other elevations; performed partial or complete analysis of all the principal soils, minerals, and ores which came under his jurisdiction, as well as of several vegetable products, including the principal varieties of the cerealia and Indian Corn. In the mean time, he discovered a rich mine of tin ore, the only one known in the United States, as well as somewhat extensive mines of copper, iron, lead blended with silver, and several rich quarries of lime marl, peat, soap-stone, slate, granite, mica, feldspar, black-lead, brick and potter's clay, ochre, manganese, sulphate of iron, &c., &c. He has also entered fully into the economical geology and metallurgy of the State, suggesting various plans for working the mines, smelting their ores, and illustrating the same by numerous diagrams. He has collected a great amount of statistical information relative to the extent, modes of culture, and rotation of crops, and has pointed out means for improving the soil and rendering it more productive. In short, it is a complete Hand Book for the northern farmer and miner, and it is to be regretted that the circulation of so valuable a work should be so limited.

By permission, however, from the author, we shall make copious extracts in our future numbers, which we hope will be no less acceptable to our readers than useful to the community at large.

THE POMOLOGICAL MANUAL, OR TREATISE ON FRUITS: Containing descriptions of a great number of the most valuable varieties for the Orchard and Garden. By William Robert Prince, aided by William Prince, proprietor of the Linnaean Botanic Garden and Nurseries, Flushing, Long Island. In 2 Parts, pp. 418.

A TREATISE ON THE VINE: Embracing its History from the earliest ages to the present day, with descriptions of above 200 Foreign, and 80 American varieties; together with a complete Dissertation on the Establishment, Culture, and Management of Vineyards. By the same authors as above; pp. 355.

Although some new discoveries in fruits have been made since these volumes were published, and a different treatment is pursued in the culture of some things, still, the above works are highly valuable, and should be in the hands of all who wish to be fully informed on subjects of which they treat. The crops of fruit in the United States are becoming of greater value every year; it is consequently more and more important that we give an increased attention to an enlightened and profitable culture of them.

PRAIRIE FARMER.—Published and edited by Messrs. Wright & Wight, Chicago, at \$1 a year. This is one of the very best Agricultural Journals for the West that we know. It is edited with spirit and ability, and its typographical appearance would be creditable to any one of our eastern periodicals. We will gladly take subscriptions for it at this office, and guarantee its being promptly sent when ordered.

RECORDS OF THE EDINBURGH, LONDON, WESTMINSTER, AND FOREIGN QUARTERLY REVIEWS, AND BLACKWOOD'S MAGAZINE, by Leonard Scott & Co., 112 Fulton street, N. Y. Price for any one Review, \$3; any two, \$5; any three, \$8; Blackwood, monthly, \$3; for the five works, \$10. The established character of these able periodicals, renders it unnecessary for us to say a single word in their favor, other than that they abound more with articles on Agriculture and the Domestic Animals, than formerly. "Progress of Scientific Agriculture," in the Edinburgh Review for January, is an admirable article; and one of the most pleasing and instructive essays we ever read on the Bee, recently appeared in the London Quarterly. For further particulars regarding these periodicals, see advertisement.

REPORT TO THE NAVY DEPARTMENT OF THE UNITED STATES ON AMERICAN COALS, applicable to Steam Navigation and to other purposes. By Walter R. Johnson. This is a most valuable public document, sent us by the Hon. J. S. Skinner, of the Post Office Department, at Washington.

PRINCE'S DESCRIPTIVE CATALOGUE of Fruits and Ornamental Trees, Shrubbery, Vines, and Plants, cultivated and for sale at the Linnean Botanic Garden and Nurseries, at Flushing, Long Island, near New York. This is a very complete Catalogue of 110 pages, containing nearly everything in its line that one could desire to cultivate.

SEEDS FOR DISTRIBUTION.—The Hon. H. L. Ellsworth, Commissioner of the Patent Office at Washington, has sent us about thirty different kinds of seeds of superior vegetables, grains, &c., which our friends can have by calling at our office, and selecting such as they are desirous of experimenting with. Mr. Ellsworth annually makes the most praiseworthy efforts this way in behalf of agriculture.

WE WANT TO PURCHASE—*Jerusalem Artichokes* (*helianthus tuberosus*), enough of these to plant half an acre.—*A Canadian Stallion*, of handsome form, sound and young. A pacer would be preferred to a trotter. The price must be moderate.—*Jersey Sweet Corn*.—Three or four barrels in the ear, of the best kind, for soiling.—*A Young Horse*, easy under the saddle, and broke to harness. One not over 6 years old, about 15 hands high, switch tail, and of a bright bay or some dark color. His price must not be over \$150, and it is useless calling our attention to an animal that is not perfectly sound and of good action, figure and substance, for the money.

ACKNOWLEDGMENTS.—To Dr. D. P. Gardner, for his Address before the National Convention of Farmers held at the Repository of the American Institute, in the city of New York, October, 1844; John W. Lincoln, Esq., for the Transactions of the Worcester County Agricultural Society for the year 1844; T. B. Wakeman, Esq., for Proceedings of the National Convention of Farmers and Gardeners, and Friends of Agriculture, held at the American Institute, October, 1844; J. S. Skinner, Esq., for Mr. Ruffin's Agricultural Survey of South Carolina, which we noticed at length in our last volume; Henry Watson, Esq., for Transactions for 1843 and '4 of the Hartford County Agricultural Society of Connecticut; some unknown friend, for the Second Annual Report of the Transactions of the Monroe County Agricultural Society, with the Address of Dr. Daniel Lee.

REVIEW OF THE MARKET.

PRICES CURRENT IN NEW YORK, FEBRUARY 24, 1845.			
ASHES, Pots,	per 100 lbs.	\$3 75	to \$4 00
Pearls,	do.	4 19	" 4 25
BALE ROPE,	lb.	6	" 9
BARK, Quercitron,	ton	23 50	" 25 00
BEANS, White,	bush.	1 25	" 1 50
BEESWAX, Am. Yellow,	lb.	28	" 31
BOLT ROPE,	do.	12	" 13
BONES, ground,	bush.	35	" 40
BRISTLES, American,	lb.	25	" 65
BUTTER, Table,	do.	15	" 18
Shipping,	do.	8	" 12
CANDLES, Mould, Tallow,	do.	9	" 12
Sperm,	do.	27	" 38
Stearine,	do.	20	" 25
CHEESE,	do.	4	" 8
COAL, Anthracite,	2000 lbs.	5 00	" 6 00
CORDAGE, American,	lb.	11	" 12
COTTON,	do.	4 $\frac{1}{2}$	" 9 $\frac{1}{2}$
COTTON BAGGING, Amer. hemp,	yard	14	" 15
American Flax,	do.	16	" 17
FEATHERS,	lb.	27	" 31
FLAX, American,	do.	7	" 8
FLOUR, Northern and Western,	bbl.	4 50	" 4 94
Fancy,	do.	5 00	" 5 50
Southern,	do.	4 50	" 4 94
Richmond City Mills,	do.	5 50	" 5 75
Rye,	do.	3 50	" 3 75
GRAIN—Wheat, Western,	bush.	95	" 1 00
Southern,	do.	95	" 1 00
Rye,	do.	65	" 68
Corn, Northern,	do.	48	" 50
Southern,	do.	44	" 46
Barley,	do.	60	" 62
Oats, Northern,	do.	34	" 36
Southern,	do.	28	" 31
GUANO,	cwt.	2 00	" 2 50
HAY,	100 lbs.	50	" 60
HIDES, Dry Southern,	lb.	9	" 11
HEMP, Russia, clean,	ton	185 00	" 190 00
American, water-rotted,	do.	105 00	" 180 00
American, dew-rotted,	do.	75 00	" 125 00
HOPS,	lb.	13	" 15
HORNS,	100.	2 00	" 8 00
LEAD,	lb.	3 $\frac{1}{2}$	" 4
Sheet and bar,	do.	4	" 4 $\frac{1}{2}$
MEAL, Corn,	bbl.	2 44	" 2 75
Corn,	hhds.	11 75	" 12 00
MOLASSES, New Orleans,	gal.	23	" 25
MUSTARD, American,	lb.	16	" 31
NAVAL STORES—Tar,	bbl.	1 50	" 1 56
Pitch,	do.	1 00	" 1 12
Rosin,	do.	55	" 65
Turpentine,	do.	2 50	" 3 00
Spirits Turpentine, Southern,	gal.	35	" 37
OIL, Linseed, American,	do.	68	" 70
Castor,	do.	70	" 75
Lard,	do.	55	" 65
OIL CAKE,	100 lbs.	1 00	" —
PEAS, Field,	bush.	1 25	" 1 50
PLASTER OF PARIS,	ton	2 50	" 2 62
Ground, in bbls.,	of 350 lbs.	1 12	" 1 25
PROVISIONS—Beef, Mess,	bbl.	6 00	" 8 00
Prime,	do.	4 50	" 5 50
Smoked,	lb.	5	" 7
Rounds, in pickle,	do.	3	" 5
Pork, Mess,	bbl.	8 25	" 10 25
Prime,	do.	6 50	" 8 12
Lard,	lb.	6 $\frac{1}{2}$	" 7 $\frac{1}{2}$
Bacon sides, Smoked,	do.	3 $\frac{1}{2}$	" 4 $\frac{1}{2}$
In pickle,	do.	3	" 4
Hams, Smoked,	do.	5	" 10
Pickled,	do.	4	" 7
Shoulders, Smoked,	do.	4	" 6
Pickled,	do.	3	" 3
RICE,	100 lbs.	3 00	" 3 50
SALT,	sack	1 35	" 1 45
Common,	bush.	23	" —
SEEDS—Clover,	lb.	6 $\frac{1}{2}$	" 7
Timothy,	7 bush.	10 00	" 12 00
Flax, rough,	do.	10 00	" 11 50
Clean,	do.	12 00	" 12 25
SODA, Ash, cont'd 80 per cent. soda,	lb.	3	" 3 $\frac{1}{2}$
Sulphate Soda, ground,	do.	1	" —
SUGAR, New Orleans,	do.	3 $\frac{1}{2}$	" 6
SUMAC, American,	ton	25 00	" 27 50
TALLOW,	lb.	6 $\frac{1}{2}$	" 7
TOBACCO,	do.	2 $\frac{1}{2}$	" 6
WHISKEY, American,	gal.	22	" 24
WOOL, Saxony,	lb.	45	" 60
Merino,	do.	35	" 45
Half-blood,	do.	30	" 35
Common,	do.	25	" 30

NEW YORK CATTLE MARKET—Feb. 24.

At Market 900 Beef Cattle (500 from the South), 125 Cows and Calves, and 1000 Sheep.

PRICES—Beef Cattle are dull of sale at our last week's figures, which we continue—left 100.

Cows—Sales at \$12 a 28, with extra at \$35—left over, 15.

Sheep—We quote \$1.50 to \$2.50, and \$5 for extra.

Hay—A large supply at 60 a 75c. per cwt.

REMARKS.—*Ashes* continue firm notwithstanding the late rather unfavorable news by the Hibernia. *Cotton* remains unchanged in price. Exports since 1st September, 755,709 bales; same time last year, 392,058; same time year before, 892,136. *Flour* has a downward tendency. *Grain* in demand. *Hay* dull. *Molasses* and *Sugar* active. *Provisions* in fair request. *Tallow* very dull. *Tobacco* little doing. *Wool* is more inquired for.

Money is more abundant, and good paper can be done from 5 to 6 per cent. We understand our banks have about \$6,000,000 of specie in their vaults. Exports nearly ceased.

Stocks, without much change.

Real Estate continues to be offered in large parcels, and obtains good prices.

The Weather was pretty cold the fore part of February, with an extraordinary fall of snow on the 4th, of full twenty inches deep. On the 14th it began to thaw, followed the next day with rain and heavy thunder and lightning; since which, the weather has gradually become warm and pleasant. We rarely have it more so in March.

To CORRESPONDENTS.—*A Novice.* We gave full directions for the management of the Kitchen Garden in our first volume, p. 56, and continued p. 88, and under this head, in Northern Calendars in last volume. It would not be considered fair by a majority of our readers to repeat these matters. The Kitchen Gardener's Instructor, by Bridgeman, can be had for fifty cents; a work on the same subject, published last year by Lea and Blanchard, for 25 cents; and Cobbett's American Gardener for 75 cents. The early dwarf potato ripens soonest, but is a shy bearer. The kidney and mercer are good bearers, and are more generally cultivated for an early market in this vicinity.

G. L. COCKRILL, E. S., W. W. V., THOMAS APPLECK, JOHN P. NORTON, MRS. KIRKLAND, JOHN LEWIS,
Are received, and shall appear in our next. We must apologize to several of our valued Correspondents for not yet inserting their Communications sometime on hand. We hope to clear off the old score next month.

FASTOLFF RASPBERRY, LANCASHIRE GOOSEBERRIES, &c.

At Prince's Linnean Bot. Garden and Nurseries.

Four Hundred genuine Fastolff Raspberry, imported from Mr. Youel, who brought it to notice; 600 Franconia, large and fine; 4,000 Lancashire Gooseberries, comprising 150 of the largest and finest kinds, recommended by the London Horticultural Society; 60 Victoria Red Currant and all other choice kinds. Strawberries of every celebrated variety, whose merits were proved the past season. Of Roses, a most perfect collection, comprising about 1,000 varieties fully described in the Catalogue. The above, and all Ornamental Trees are priced at the lowest rates in the New Descriptive Catalogues, which will be sent to every post paid applicant.

WM. R. PRINCE & CO.

Flushing, Feb. 1st, 1845.

LINNÆAN BOTANIC GARDEN & NURSERY

Late Prince's, Flushing, L. I., near N. Y.

The new Proprietors of this ancient and celebrated *Nursery*, late of WILLIAM PRINCE deceased, and exclusively designated by the above title for nearly fifty years, offer for sale, at reduced prices, a more extensive variety of

FRUIT AND ORNAMENTAL TREES,

SHRUBS, VINES, PLANTS, &c., than can be found in any other *Nursery* in the United States, and the *genuineness* of which may be depended upon; and they will unremittingly endeavor to merit the *Confidence* and *Patronage* of the Public, by *Integrity* and *Liberality* in dealing, and *Moderation* in charges.

Descriptive Catalogues, with Directions for Planting and Culture, furnished gratis on application to the New Proprietors, by mail, post paid, and Orders promptly executed.

WINTER & CO., Proprietors.

Flushing, Feb. 1, 1845.

EAST WINDSOR SEED LEAF TOBACCO SEED.

The genuine East Windsor *broad* and *narrow* Seed Leaf Tobacco Seed, saved the past season from selected plants.

For sale by E. W. BULL,
Seedsman to the Hartford Co. Ag. So.

Hartford, Ct., Feb. 20, 1845. 1t*

BONNER'S METHOD OF MAKING MANURE.

One Hundred agents are wanted immediately, to promote the general introduction of this valuable invention, for the manufacture of Manure in New York, New Jersey, Virginia, Delaware, and in the six New England States. Unquestionable testimonials and responsible securities will be required for the faithful discharge of the duties of the appointment. Persons of suitable qualifications will find this both a useful and lucrative employment. Applications, if by mail, must be post paid, and directed to me at Westville, New Haven County, Connecticut.

Hundreds of testimonials from the best authorities, evince that no farmer who is sensible of the want of Manure, should remain destitute of this cheap and expeditious mode of its procurement. Any person forwarding Five Dollars to the General Agent, with information of the writer's name, residence, and address, shall be furnished with a copy of the method, with the right to use the same, without charge of postage.

ELI BARNETT, General Agent.

Westville, Conn., March 1, 1845.

HOVEY'S SEEDLING STRAWBERRY.

Of which the largest berries are from five to six inches in circumference, and their quality not surpassed. See Magazine of Horticulture, and Agricultural papers generally.

For sale by Philetus Phillips, Middletown Point, N. J., Agents: John Moore, Fulton street, New York; Henry A. Dreer, 97 Chestnut street, Philadelphia; Payne and Gregory, Lynchburgh, Va.; T. M. Hunt, Auburn, N. Y.; T. O. Loomis, Windsor, Conn.; Thomas T. Bleyler, Bordentown, N. J.; D. C. Goodale, Chiunney Point, Vt.; J. B. Ackerman, Goshen, N. Y.; Jesse O. Dissaway, Richmond, N. Y.; H. J. Sickels, Albion, N. Y.; Josephus Shann, Rhaway, N. J.; B. P. Winant, Rossville, N. Y.; Jacob W. Dillon, Kingston, N. Y.; Wightman and Turner, New-London, Conn.; Charles Raymond, New Canaan, Conn.; M. A. Santon, Norfolk, Va.

The plants ordered by agents will be forwarded with the utmost punctuality at such times as to reach their destination on the 1st, 15th, and 30th of April. Purchasers, therefore, by giving the agents their orders seasonably, with reference to the above dates, can be ready to receive their plants immediately on their arrival, while fresh and in good order.

A sheet containing particular directions for the cultivation of this and other varieties of the Strawberry (chiefly extracts from the Magazine of Horticulture, published at Boston), is furnished gratuitously with the plants sold. Price of Plants, \$1.50 per Hundred.

February, 1845.

PERUVIAN GUANO.

The undersigned has received by the George and Henry, direct from the Chincha Islands, on the coast of Peru, a cargo of this valuable manure. It was shipped by and for account of the Peruvian Guano Company, and is warranted pure, and of the best quality. Price

In bags of about 150 lbs., each 3 cts. per lb.

In lots not less than five tons, 2½ cts. "

" " ten tons, 2½ cts. "

" " over ten tons, 2 cts. "

It may be had in small parcels of not less than one bag, at Thompson's stores, Brooklyn, or in larger parcels by

EDWIN BARTLETT, 42 South street.

IMPERIAL OATS.

The subscriber has for sale a few barrels of the above superior oats,—price \$3.50 per barrel, delivered on board vessel. If two or more barrels are taken, a deduction will be made of ten per cent. The imperial oats are considered the best kind now cultivated, having less husk about them than any other known. Their weight is from 40 to 44 lbs. per bushel.

A. B. ALLEN, 205 Broadway, N. Y.

BOUNDED VOLUMES OF THE AMERICAN AGRICULTURIST.

These may be had at the following places, viz.:

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